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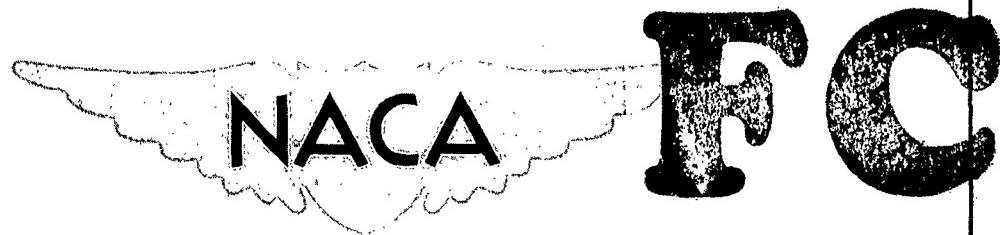
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RESEARCH MEMORANDUM

AERODYNAMIC LOADINGS ASSOCIATED WITH SWEPT AND UNSWEPT
SPOILERS ON A FLAT PLATE AT MACH NUMBERS OF 1.61 AND 2.01

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RESEARCH MEMORANDUM

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SUMMARY

An investigation has been made at Mach numbers of 1.61 and 2.01 for a range of Reynolds numbers from 0.12×10^6 to 0.56×10^6 per inch to examine the flow, force, and moment characteristics associated with spoilers mounted on a flat plate at sweep angles from 0° to 75° . The three basic spoilers included two inclined 90° and one inclined 45° to the flat-plate surface on which they were mounted. Pressure measurements were obtained over the plate and spoiler faces. These pressures were then integrated to determine the spoiler lift, pitching-moment, drag, and hinge-moment characteristics.

For the unswept condition, the pressure distributions along the plate and on the spoiler faces and the force and moment characteristics of the spoilers could be correlated for a given Mach number on the basis of the height and location of the spoiler top. The three-dimensional behavior of the flow over the swept spoilers and the limited data available precluded the establishment of any simple method for extending the unswept-spoiler results to the swept case. Regions of reversal in lift effectiveness and large decreases in pitching moment were observed near the spoiler apex for the swept spoilers. The section drag and hinge moments of the spoiler decreased as distance from the apex of the swept spoilers increased. Within the ranges of the tests, varying the Reynolds number or fixing transition generally caused only small changes in pressures or integrated characteristics.

INTRODUCTION

Among the many devices for providing control of aircraft at supersonic speeds, one of the most promising from the standpoint of low wing twist and low hinge moments is the spoiler. At the present time, however, there is available only a limited amount of data on such configurations. Force tests have been made on several small-scale models (refs. 1 to 4).

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to determine the effects of spoiler size and location on the effectiveness obtained on wings of various plan forms. Pressure-distribution tests have also been made (refs. 5 to 8) in order to better understand the flow phenomena involved.

The data available indicate that there may be large changes in the aerodynamic characteristics of spoilers due to changing the sweep angle with respect to the air stream. In an attempt to obtain a more fundamental insight into the flow field of a swept spoiler, pressure-distribution measurements have been made in the vicinity of and on several spoilers mounted on a flat plate. The tests were made on a flat plate rather than on a wing because fundamental correlations and theoretical analyses could be obtained more easily and it circumvents the complex flow field of an actual wing with its chordwise pressure gradients and spanwise boundary-layer flows. It should be mentioned that this is a basic first step and the application of the results to actual wing spoiler installations will require further study. In the present report, the effect of sweeping spoilers through an angle range from 0° to 75° in a uniform flow field having a turbulent boundary layer at Mach numbers of 1.61 and 2.01 has been studied. In addition to the effects of sweep and Mach number, the effects of spoiler height, inclination, and span were investigated as were the effects of fixing transition, simulated actuating arms, and an endplate. The Reynolds number range was from 0.12×10^6 to 0.56×10^6 per inch and the maximum spoiler height was 0.896 inch. Some preliminary results of these data were reported in reference 9.

SYMBOLS

M	stream Mach number
β	$\sqrt{M^2 - 1}$
R	Reynolds number per inch
q	stream dynamic pressure
p	stream static pressure
p_l	local surface pressure
c_p	pressure coefficient, $\frac{p_l - p}{q}$

- x streamwise distance from base of spoiler front face along given orifice row
- y distance from upstream tip of spoiler along spoiler
- z perpendicular distance from bypass plate
- h spoiler height (distance from base to top of spoiler measured perpendicular to the bypass plate; see fig. 1)
- c_s spoiler chord (distance from base to top of spoiler measured along spoiler face; see fig. 1)
- c hypothetical wing chord determined by length of orifice row
- δ spoiler deflection angle (angular displacement of spoiler about base with respect to bypass plate; see fig. 1)
- Λ spoiler sweep angle (angular displacement of spoiler parallel to bypass plate, with respect to a plane perpendicular to the stream; see fig. 1)
- l section lift produced by spoiler over the distance c
- m section pitching moment of l about spoiler base
- d section drag of spoiler (streamwise)
- h' section hinge moment of spoiler about spoiler base
- c_l section lift coefficient, $\frac{l}{q_h}$
- c_m section pitching-moment coefficient, $\frac{m}{q_h^2}$
- c_d section drag coefficient, $\frac{d}{q_h}$
- $c_{h'}$ section hinge-moment coefficient, $\frac{h'}{q c_s^2}$
- $c_{l'}$ section lift coefficient, $\frac{l}{q_c}$
- $c_{m'}$ section pitching-moment coefficient, $\frac{m}{q c^2}$

APPARATUS,

Wind Tunnel

This investigation was conducted in the Langley 4- by 4-foot supersonic pressure tunnel which is a rectangular, closed-throat, single-return type of wind tunnel with provisions for the control of the pressure, temperature, and humidity of the enclosed air. Flexible nozzle walls were adjusted to give the desired test-section Mach numbers of 1.61 and 2.01. During the tests, the dewpoint was kept below -20° F so that the effects of water condensation in the supersonic nozzle were negligible.

Model and Model Mounting

The models used in this investigation consisted of several spoilers mounted on a boundary-layer bypass plate as shown in figure 1. The three basic spoilers are shown as configurations 2, 3, and 4 in figure 2. (Configuration 1 is not shown, since by test nomenclature it was the no-spoiler condition.) As modifications were made to the basic models, they were assigned the subsequent configuration numbers 5 through 9 as shown in figure 2. Each spoiler was constructed of steel with the pressure-tube installations made in grooves in the surfaces which were faired over with a transparent plastic material. The 22 spoiler orifices were located at two stations along the span on the front and rear faces of the spoiler as described in the table of figure 2.

The turntable on which the spoilers were mounted was installed flush with the boundary-layer bypass plate as shown in the photographs of figure 3. This turntable was instrumented with 265 pressure orifices located in seven rows as described in figure 2 and tables 1 through 22. The numbering system used to identify the six rows passing through station 1 was chosen to immediately identify the angle of the row with respect to the stream. Thus, the first digit of the angular displacement of each row from the basic row 0 identifies the row. For $\Lambda = 0^\circ$, then, row 0 is parallel to the stream, for $\Lambda = 15^\circ$, row 1 is parallel to the stream, for $\Lambda = 30^\circ$, row 3 is parallel to the stream, etc. Note that row 9 is a shorter row parallel to row 0 but passing through station 2. There were no pressure orifices on either the endplate or the actuating arms.

TESTS

The model sweep angle was varied by rotating the turntable in the bypass plate and was measured by a vernier on the outside of the tunnel. The pressure distributions were determined from photographs of the multiple-tube manometer boards to which the pressure leads from the

spoiler and turntable orifices were connected. The reduction of the data to pressure-coefficient form and the integration of the pressure distributions along the plate by a step integration procedure were performed by IBM equipment. The integration of the pressure distributions over the spoiler faces was performed with mechanical integrators.

The majority of the tests were made at sweep angles from 0° to 75° in intervals of 15° so that a row of tubes on the plate was always aligned with the stream. Configuration 5 was tested at $\Lambda = 45^\circ$ only and configuration 8 was tested at both positive and negative sweep angles. Most of the tests were made at tunnel stagnation pressures of 13 and 15 pounds per square inch at Mach numbers of 1.61 and 2.01, respectively, corresponding to a Reynolds number of 0.30×10^6 per inch. Additional tests were made on some configurations in which the stagnation pressure was varied. The maximum Reynolds number range covered was from 0.14×10^6 to 0.56×10^6 per inch at $M = 1.61$ and from 0.12×10^6 to 0.30×10^6 per inch at $M = 2.01$. All of the tests except those of configuration 6 were made under conditions of fixed transition using a 1/4-inch strip of No. 60 carborundum attached to the boundary-layer bypass plate 1 inch from its leading edge. (See fig. 1.)

PRECISION

The mean Mach numbers in the region occupied by the model are estimated from calibrations to be 1.61 and 2.01 with local variations being smaller than ± 0.02 . There is no evidence of any significant flow angularities. The estimated accuracy in setting the spoiler sweep angle is $\pm 0.05^\circ$. The basic measured quantity C_p is believed accurate to ± 0.01 .

RESULTS

The complete pressure-distribution results of this investigation are presented in tables 1 to 22. The analysis of the data and presentation of the figures is made in four sections: first, the pressures measured on the turntable (figs. 4 to 14); second, the pressures measured on the spoiler faces (figs. 15 to 24); third, the integrations of the turntable pressures along streamwise rows to determine section lift and pitching moments caused by the spoilers (figs. 25 to 29); and fourth, the integrations of the spoiler-face pressures to determine the spoiler drag and hinge moments (figs. 30 to 34).

DISCUSSION

Plate Pressures

Effect of sweep. - The basic data from the plate pressures, measured by use of the turntable orifices, are presented in figure 4 in the form of streamwise pressure distributions at station 1 through the sweep-angle range from 0° to 75° . At $\Lambda = 0^\circ$, the pressure distributions show the same general shapes as were shown in the tests of reference 7. In order to surmount the spoiler, the flow must be deflected from the plate surface some distance ahead of the spoiler causing a shock and the associated rapid pressure rise. The pressure then remains relatively constant until a point is reached just forward of the spoiler base, where a second pressure increase occurs due to stagnation of the circulatory flow in the wedge-shaped separated-flow region ahead of the spoiler. A rapid expansion to a negative pressure coefficient occurs at the top of the spoiler, followed by a gradual compression back to stream pressure some distance downstream of the spoiler.

When the spoiler is swept with respect to the stream, the flat portion of the pressure distribution ahead of the spoiler between the two compression regions is gradually replaced by a region of accelerated flow. This is in agreement with the data of reference 6, which considered only the distributions ahead of the spoiler. The mechanics of the flow causing this acceleration is not fully understood, but is believed to be caused by the three-dimensional nature of the flow for the swept condition. As was previously described in reference 9, the flow not only must be deflected by a shock from the surface to surmount the spoiler height, but also must be turned along the plate surface by a new shock; thus allowing the flow to move parallel to the face of the spoiler. The first of the two shocks would tend to remain close to and parallel to the spoiler; whereas the second shock would tend to assume the position of a detached shock wave about the apex of the spoiler with the shock angle decreasing along the span to the Mach angle at an infinite distance. The interaction of the two shocks, then, determines the location and strength of the first compression on the pressure distributions. At some distance from the apex the two shocks tend to separate and a region of accelerated flow appears between them. This acceleration may be due to the relieving effect of the flow passing over the spoiler similar to the relieving effect experienced within the Mach cone near a wing tip. (Consider the bypass plate as a reflection plane and the spoiler as a low-aspect-ratio wing at a very high angle of attack.)

Downstream of the spoiler, the pressure distribution tends to change from a triangular to a rectangular loading as the sweep is increased. At the largest sweep angle of 75° , which is probably a more academic

than practical condition, the pressure distribution downstream of the spoiler becomes erratic and the loading is generally very small.

In order to investigate in more detail the changes in the flow field with changes in sweep angle, configuration 8 was tested at positive and negative sweep angles. By superimposing the contour plots obtained from all the pressures measured on the plate at reversed angular conditions, the contour plots of figure 5 were obtained and show much more of the field than would the two-quadrant coverage at the positive angles alone.

At $\Lambda = 0^\circ$, figure 5(a) shows the symmetry of the flow and the relieving effect of the spoiler tips. Over the largest portion of the spoiler span the flow is essentially two-dimensional. When the spoiler is swept, the remainder of figure 5 shows the development of the three-dimensional flow field over the entire spoiler span. The upstream influence of the spoiler generates a pressure field which assumes the shape of a detached shock about the spoiler apex. The largest accelerations ahead of the spoiler occur in a region approximately parallel to the spoiler and the largest compressions just ahead of the spoiler occur near the apex. Behind the spoiler, the expansion from the apex becomes evident at the higher sweep angles ($\Lambda = 45^\circ$) and the shape of the isobars indicates the presence of vortices in the approximate direction of the stream. Since the spoiler can be considered to be a very low-aspect-ratio wing, the formation of tip vortices due to the pressure differential across the spoiler would confirm these indications. At $\Lambda = 75^\circ$, it was impossible to obtain contours downstream of the spoiler due to asymmetries in the spoiler support (see fig. 1) which caused asymmetries in the pressure contours at $\Lambda = \pm 75^\circ$.

From the previous discussion of the three-dimensional character of the flow over a swept spoiler, it becomes obvious that a complete analysis of the effects of sweep on a spoiler would be incomplete without pressure surveys over the complete span of the spoiler. Figure 6(a) shows the systematic changes in the pressure distributions as two successive portions of the tip of configuration 2 were removed - the pressure-distribution station therefore approaching more closely the spoiler apex. Figure 6(b) shows similarly the effect of 0° , 30° , and 60° of sweep on the pressure distributions measured in the streamwise direction at five different distances from the spoiler apex in terms of the spoiler height. At the closest station to the apex ($y/h = 4.3$), $\Lambda = 60^\circ$ has the least forward effect; whereas at the furthestmost station from the apex ($y/h = 11.7$), $\Lambda = 60^\circ$ has the most forward effect. The change takes place in a gradual and consistent manner as y/h increases.

Effect of spoiler height. - The effects on the pressure distributions of decreasing the spoiler height from 0.896 inch for configuration 2 to 0.586 inch for configuration 3 are shown in figure 7. The abscissa

is the distance in spoiler heights and the pressure distributions at $\Lambda = 0^\circ$ show excellent correlations on this basis. At the sweep angles considerable differences become evident; however, these are probably due primarily to the difference in location of the pressure station from the spoiler apex in terms of the height. Thus, the pressure distributions for configuration 3 are affected by the initial compression further forward because the measuring station for configuration 3 is further outboard from the apex, in spoiler heights.

Effect of spoiler deflection angle.- The effect on the pressure distributions of decreasing the spoiler deflection angle from 90° for configuration 2 to 45° for configuration 4 is shown in figure 8. In this figure the abscissa has been chosen as the distance from the top of the spoiler in heights because it was anticipated that the position of the top of the spoiler would dictate the pressure distribution along the plate. That this was the case can be seen from the good correlation obtained for the unswept spoiler condition. At sweep angles the differences obtained are again due to varying distances from the spoiler apex in heights and are therefore inconclusive in considering the effect of deflection angle.

If the practical applications of configurations 2 and 4 as a hinged spoiler are considered, it is of interest to plot the pressure distributions in terms of some given wing chord as has been done in figure 9. The comparison then shows the pressure distributions on a fictitious flat-plate wing having a flap-type spoiler deflected to 90° and 45° . Ahead of the spoiler the half-deflected spoiler carries about 60 percent of the load of the fully deflected one. Behind the spoiler there is little change in the pressure distribution due to increasing the spoiler deflection from 45° to 90° . It should be mentioned that the 45° spoiler is carrying some lifting load on the spoiler itself, which is not accounted for here.

Effect of simulated actuator arms.- Although the choice of location and shape of the simulated actuator arms is completely arbitrary, they should be satisfactory for investigating the effect of such protuberances from the front face of the spoiler. In figure 10, comparison is made between the pressure distributions obtained on configuration 3 (without actuator arms) and those obtained on configuration 9 (with actuator arms). At $\Lambda = 0^\circ$ and 15° , where little spanwise flow is present, no effect of the actuator arms is evident. As the sweep is increased, the effect of the arms increases until at 75° a very sharp compression region occurs, followed by a very sharp expansion region, some distance ahead of the spoiler along the orifice row. Here again the inherent weakness of the test technique involving a measurement at only one spanwise station is evident. At the larger sweep angles, the rows of orifices being used are closer to the actuating arm and, therefore, the sudden variations may be present in only a localized area near each actuator arm due to the interruption of the spanwise flow.

Effect of Mach number. - Although the Mach number range of these tests was limited, it is of interest to consider the effect of Mach number and the predictability of that effect. Figure 11 shows for three sweep angles a comparison of the streamwise-pressure distributions on configuration 2 at the two test Mach numbers. In addition, the similar variations are shown for the normalized pressure distributions using

the $\beta = \sqrt{M^2 - 1}$ relationship. The basic pressure distributions show generally decreased loadings due to increasing Mach number, as would be expected, except near the spoiler at $\Lambda = 60^\circ$. The β relationship, shown to be effective in predicting pressure distributions on flap-type controls in reference 10, failed to correlate the pressures measured ahead of the spoiler, but did fairly well in correlating the pressures measured downstream of the spoiler. This result is not unexpected. The flow behind the spoiler is similar to the flow at the base of a body or behind the thick trailing edge of a wing for which the base pressure is well known

to vary approximately as $1/\sqrt{M^2 - 1}$. (For example, see ref. 11.) The pressures in front of the spoiler are dependent upon pressure rise required to separate a turbulent boundary layer. No theory for calculating the general pressure distribution is available, but the variation of the first pressure rise with Mach number at zero sweep is in good agreement with the theoretical predictions of reference 12 and the experimental results of references 7 and 13.

Effect of Reynolds number. - The effect on the pressure distributions of increasing the Reynolds number from 0.14×10^6 to 0.56×10^6 per inch is shown in figure 12. The only appreciable effect of Reynolds number appears to be in the region of the first compression. This is the most inaccurate portion of the pressure distribution due to the rapid changes in pressure and fewer number of orifices.

Effect of fixing transition. - The pressure distributions showing the effects of fixing transition at $R = 0.30 \times 10^6$ and 0.14×10^6 are shown in figure 13. The results at $R = 0.30 \times 10^6$ show no effect throughout the sweep-angle range. At $R = 0.14 \times 10^6$, preliminary investigation of the data indicated some effect at station 1 and a greater effect at station 2. Since the streamwise rows are not available at station 2, for figure 13(b), the effect of fixing transition has been shown along the rows perpendicular to the spoiler at the two stations for sweep angles of 0° , 30° , and 60° . Indications are that in the natural transition case the flow at this low Reynolds number has not become fully turbulent when the region of influence of the spoiler is first reached. The reason for the effect being greater at station 2 probably results from the shorter run along the bypass plate from the leading edge due to the leading-edge sweepback. By the time $\Lambda = 60^\circ$ is reached, the effect of fixing transition has disappeared.

Effect of the endplate.- The basic streamwise pressure distribution at station 1 for configuration 5, which used the same spoiler as configuration 2 with the addition of the endplate, is shown in figure 14 compared with configuration 2. The changes due to the endplate are small and it would therefore appear that the flow at this station is little influenced by a fuselage-type endplate aligned with the stream. Inspection of the pressure contours indicates that there are only small changes ahead of the spoiler across the span due to installation of the endplate.

Spoiler Pressures

Effect of sweep.- The basic data from the spoiler pressures, measured by use of the spoiler-face orifices, are presented in figure 15 in the form of pressure distributions, from bottom to top of the spoiler, through the sweep-angle range from 0° to 75° . For the unswept condition there is very little difference between the pressure distributions measured at station 1 and those measured at station 2. All of the configurations, except configuration 4, were perpendicular to the plate and exhibit similar distributions. The pressures are generally constant over the rear face; however, the pressures over the front face indicate stagnation regions near the bottom and top of the spoiler such as were described in reference 13. These are attributed to the circulatory flow in the separated region ahead of the spoiler. On configuration 4, which is deflected only 45° to the plate, the distribution on the front face is considerably different, there being no stagnation point near the bottom, the largest pressure occurring at about 80 percent of the height and being followed by an acceleration. Consideration of the shape of the circulatory flow region for this configuration indicates that the shallow angle through which the reversed flow must turn at the base mitigates the pressure increase previously noted for the 90° spoiler. Near the top of the 45° spoiler, in contrast, the flow must reverse through an angle approaching 180° , which it apparently finds impossible to negotiate and therefore loses some of the circulating air over the top of the spoiler.

As the spoiler is swept, the loadings on both surfaces of the spoiler tend to decrease, but in a manner other than linear. The stagnation areas at the top and bottom of the 90° spoiler front faces gradually disappear until at $\Lambda = 60^\circ$ and 75° the distributions along the front faces of the 90° and 45° deflected spoilers are identical. For many of the swept conditions there are large differences in the distributions at the two spanwise stations, both on the rear and front faces. As would be expected from the previous discussion of the pressures on the plate, the spoiler face pressures are directly controlled by the angle of sweep and proximity to the spoiler apex. It should be noted that a good approximation of the average loads on the spoiler can be obtained by assuming the plate pressures ahead of and behind the spoiler to apply uniformly over the adjacent spoiler faces. This has been shown previously in references 14 and 9.

In order to consider in more detail the spanwise variations in spoiler face pressures, the front-face pressure-coefficient contours and variations across the span of the pressure coefficient at constant z/h have been presented in figure 16. These plots were obtained by superimposing the pressures measured on configurations 2, 7, and 8, which gave a total of 6 spanwise locations of a spoiler orifice station with respect to the spoiler apex. The contour plots of figure 16(a) show the two-dimensionality of the flow over the unswept spoiler and the large spanwise variations for the swept conditions. The most pronounced change occurs between the sweep angles of 45° and 60° where the stagnation regions disappear and the acceleration near the top appears. The contour plots for the rear face are not presented because of the small pressure changes involved which make the contours more inaccurate. The variations across the span of the pressures at the bottom, middle, and top of the spoiler faces, presented in figure 16(b), show that for sweep angles from 30° through 60° the loadings near the apex of the spoiler are much greater than those further from the apex. This is the same effect as has been previously demonstrated transonically by the tests of reference 12. At a sweep angle of 75° , the pressures over the rear face are so erratic that it is impossible to fair curves through the points. The dissimilarity of the variations measured at the two stations indicates that at this large sweep angle the differences in the spoiler support are responsible for these changes.

In figure 6, the systematic variations of the streamwise pressure distribution due to removal of portions of the tip of the spoiler, equivalent to movement along the span, were shown. Similarly, in figure 17, cutting off the tip of the spoiler at sweep angles from 30° through 60° causes gradual increases in the spoiler loadings on both surfaces and moving along the span from $y/h = 4.3$ to $y/h = 11.3$ causes a systematic change in the variation of the spoiler-face pressure distributions with sweep angle.

Effect of spoiler height. - The effect of spoiler height on the spoiler-face pressure distributions is shown by figure 18 to be negligible at 0° sweep but considerable at many sweep angles. The reduced loading for the smallest swept spoiler is probably a result of the larger distance in heights of the measuring station from the apex. The decrease in spoiler loading as distance from the apex increases has been previously discussed. It therefore appears that, for a given span swept spoiler, the shorter the spoiler height, the smaller will be the span affected by the apex.

Effect of spoiler deflection angle. - The effect of spoiler deflection angle, δ , on the spoiler-face pressure distributions has already been discussed in some detail. A direct comparison is shown, however, in figure 19. For sweep angles from 0° to 45° the average loadings for the two configurations are very similar although the variations over the

front face are different due to the differences in circulation described previously. At $\Lambda = 60^\circ$ and 75° , the variations over the faces are similar, but now the loadings on the $\delta = 45^\circ$ spoiler tend to decrease due to the greater distance of the measuring station from the apex, in actual spoiler heights.

Effect of simulated actuator arms. - The effect of the simulated actuator arms on the spoiler-face pressure distribution is shown in figure 20. At $\Lambda = 0^\circ$ and 15° , there is little effect, as would be expected, because of the small cross flows present for these angles. At larger sweep angles, the actuator arms may be considered as secondary spoilers, presenting obstructions to the spanwise flow along the front spoiler face. As a result, the face pressures at station 1, which is $1\frac{1}{4}$ inches ahead of an actuator arm, are increased.

Effect of Mach number. - The effect on the spoiler-face pressure distributions of increasing the Mach number from 1.61 to 2.01 is shown in figure 21. The effects are similar to those previously shown for the plate pressures. The loadings on both spoiler faces decrease with increasing Mach number except for the front face at $\Lambda = 60^\circ$. The correlation of the pressure distributions with the β relationship is excellent on the rear face but poor on the front face.

Effect of Reynolds number. - The effect on the spoiler-face pressure distributions of increasing the Reynolds number from 0.14×10^6 to 0.56×10^6 per inch is shown in figure 22. The localized variation with Reynolds number of the pressures near the top of the front face at $\Lambda = 30^\circ$ could have been caused by malfunction of one pressure orifice and is therefore questionable. In general, the variations due to Reynolds number are small and within the repeatability of the test results.

Effect of fixing transition. - The effect of fixing transition on the spoiler-face pressure distributions is shown in figure 23. At $R = 0.30 \times 10^6$ (fig. 23(a)), the effect is negligible. At $R = 0.14 \times 10^6$ (fig. 23(b)), there is some change due to fixing transition on the front-face pressures at $\Lambda = 0^\circ$ and 30° . The greatest effect is found at station 2 and is believed to be caused by the failure of the boundary layer to become fully turbulent for the natural transition case at this low Reynolds number, as has been previously discussed.

Effect of the endplate. - The basic spoiler-face pressure distributions for configuration 5 are shown in figure 24 compared with the pressure distributions for configuration 2. The largest differences are shown on the front face at station 1 and on the rear face at station 2. Here again the lack of sufficient spanwise-measuring stations prevents a detailed analysis and an understanding of the effect of the endplate on the flow field of the spoiler.

Plate Spoiler Lift and Pitching Moments

Effect of sweep. - The basic lift and pitching-moment coefficients, determined from integration of the streamwise plate-pressure distributions, and including the contributions of the load on the spoiler, are presented in figures 25 and 26, respectively. It should be remembered that, for the largest sweep angles tested, the integrations do not give the total lift and pitching moment developed by the spoiler because the pressure orifices did not extend far enough to cover the complete region affected. Also, the integrated characteristics were obtained for streamwise rows through station 1 only; therefore, for a given configuration, they will not necessarily be representative of the characteristics at other stations. Despite these limitations, the changes with sweep and other test conditions will be of interest.

When a spoiler is deflected on the upper surface of the wing, as, it is assumed, are the spoilers in these tests, a negative lift is desired. For the unswept conditions, the total lift for all the configurations tested here is negative, despite the positive lift caused by the pressures downstream of the spoiler. When the spoilers are swept, the gradual decrease in negative lift ahead of the spoiler and the often-times abrupt increase in positive lift behind the spoiler near $\Lambda = 45^\circ$ causes the total lift to become positive near $\Lambda = 45^\circ$. Above $\Lambda = 60^\circ$ the positive lift behind the spoiler decreases rapidly; however, the negative lift ahead of the spoiler has been almost eliminated so that the total lift approaches zero. Note that, for the $\delta = 45^\circ$ spoiler (configuration 4), much of the negative lift is carried by the spoiler itself.

Because of the strong positive lift experienced behind the spoiler, the most efficient location on a wing for a negative lift-producing spoiler is at the trailing edge. The advantage of trailing-edge spoilers for lift or roll control has long been recognized and has been discussed in references 1, 2, 3, 5, and 6.

The pitching-moment coefficients of figure 26 have been computed about the spoiler base; therefore, the loadings ahead of and behind the spoiler cause negative pitching moments, resulting in a negative total pitching-moment coefficient throughout the sweep-angle range. For most of the configurations, the pitching-moment contribution of the loading ahead of the spoiler shows gradual and small changes with increasing sweep. This is apparently due to the counterbalancing effects of the decreasing lift with the forward movement of the center of pressure of that lift. The pitching-moment contribution of the loading behind the spoiler shows a very rapid increase due to both the increasing lift and the rearward movement of the center of pressure of that lift. The pitching-moment contribution due to the loading on the spoiler is always positive and small. As a result of these variations of the loading

components, the total pitching-moment coefficient generally increased negatively with increasing sweep angle to a peak near $\Lambda = 60^\circ$ and then decreased rapidly toward zero.

Now to examine by direct comparison the effect of configuration and test-condition changes on the integrated coefficients, the lift- and pitching-moment coefficient variations with sweep angle showing most of the effects being considered are shown in figure 27. The effect of the proximity of the apex to the measuring station is demonstrated by superimposing the curves for configurations 2, 7, and 8. As the spoiler tip is cut off, the distance from the station to the apex decreases. At low sweep angles, the negative lift decreases with decreasing distance from the apex. It therefore appears that, in regions near the apex of, say, a 45° swept spoiler, regions of reversed lift effectiveness may be encountered. Such regions of reversal can be seen in the span load distributions of reference 14. The importance of reversed lift in this region will depend to a great extent on the spoiler height-span ratio.

The effect on the pitching moment of removing portions of the tip is considerably greater than that on the lift (fig. 27(b)). Closer to the apex, the negative moments are decreased considerably and the hump in the moment variation with Λ at large sweep angles is eliminated.

Effect of fixing transition.- The comparison of the lift- and pitching-moment coefficient variations with sweep angle for configurations 2 and 6 (fig. 27) shows that the effect of fixing transition at this Reynolds number is negligible.

Effect of spoiler height.- The comparison of the lift- and pitching-moment-coefficient variations with sweep angle for configurations 2 and 3 shows small changes in the lift but large changes in pitching moment due to decreasing the spoiler height. The similarity of the lift curves is somewhat surprising considering the relative distances, in heights, from the apex to the measuring station for the two configurations. It may be that for the swept conditions the reduced pressures ahead of the spoiler, as spanwise distance from the apex increases, are balanced by the increase in streamwise distance over which the pressures occur so that the integrated lift shows little change. The large moment effect is caused by the relative location of the initial compression to the spoilers and the relative extent of the orifice row downstream in terms of their spoiler heights (see fig. 7). For the two spoilers, the location of the initial disturbance in the swept condition is at approximately the same place on the plate which makes it much further forward of the small spoiler, in heights.

Effect of spoiler deflection angle.- In order to show the effect of deflection angle, δ , on the lift and pitching moments, configurations 3

and 4 have been compared (fig. 27) because the heights are more nearly equal than those of configurations 2 and 4. The lift produced by configuration 3 is somewhat more negative than that of configuration 4 over most of the sweep-angle range. The pitching-moment coefficients show considerable effect of deflection angle since it was previously shown that the location of the spoiler top determined the pressure distribution.

In order to consider the practical application of a flap-type spoiler on a hypothetical wing, figure 28 presents the total lift and pitching-moment coefficients, based on a given wing chord for configurations 2 and 4 for which $\delta = 90^\circ$ and 45° , respectively. This comparison then shows the change in lift and pitching moment caused on a given wing by a flap-type spoiler deflected from 45° to 90° . At all sweep angles, the lift and pitching moment is increased by increasing δ from 45° to 90° . At sweep angles below 30° , the $\delta = 45^\circ$ spoiler produces more than half the negative lift that the $\delta = 90^\circ$ spoiler produces. At sweep angles over 15° , the $\delta = 45^\circ$ spoiler produces more than half the pitching moment that the $\delta = 90^\circ$ spoiler produces, and at $\Lambda = 60^\circ$ it produces 80 percent as much moment. At small sweep angles, therefore, the half-deflected spoiler is a more efficient lift producer and at large sweep angles the half-deflected spoiler produces greater pitching moment per degree deflection angle.

Effect of actuator arms. - The effect on the integrated characteristics of the actuator arms (fig. 27) is to decrease the lift at sweep angles up to 40° and to increase the lift at higher angles; whereas the pitching moment is generally increased at sweep angles up to 55° and decreased at higher angles. These characteristics are probably true only at this station and similar stations with respect to the actuator arms and, therefore, are not indicative of the integrated effect across the span of such actuators.

Effect of Mach number. - Comparison of the lift and pitching moment for configuration 2 at the two test Mach numbers (fig. 27) indicates small changes in lift and fairly large decreases in pitching moment due to increasing the Mach number. At low sweep angles the lift is greatest at $M = 1.61$; whereas at large sweep angles, the lift is greatest at $M = 2.01$. These changes in lift and pitching moment are a direct result of the manner in which the loadings decreased due to increasing Mach number. (See fig. 11.)

Effect of the endplate. - The changes in lift and pitching moment at station 1 due to addition of the endplate at the spoiler apex are shown by figures 25 and 26 to be negligible.

Effect of Reynolds number. - The effect of Reynolds number on the lift and pitching-moment coefficients is shown in figure 29. There is no significant effect.

Spoiler Drag and Hinge Moments

Effect of sweep.— The basic drag and hinge-moment coefficients, determined from integration of the spoiler-face pressure distributions, are presented in figures 30 and 31, respectively. Unless specifically stated by y/h values or station number, the data presented in this entire drag and hinge-moment section were obtained at station 1.

In general, the total drag-coefficient variation with sweep angle (fig. 30) is very similar to that of the drag due to the pressures on the front face of the spoiler. For these curves the drag decreases with increasing sweep to values near zero at $\Lambda = 75^\circ$; however, the curves are at times erratic. The drag due to the rear face pressures, on the other hand, decreases very smoothly through the sweep-angle range. The front-face loading produces a greater proportion of the drag than does the rear-face loading except at some of the largest sweep angles.

The total hinge-moment-coefficient variation with sweep angle (fig. 31) also follows the trend of the hinge-moment coefficient due to the front face pressures, in general decreasing with increasing sweep, but reversing this trend over certain sweep-angle ranges on some configurations. The variation of hinge-moment coefficient with sweep angle for configuration 8 had the greatest changes. The hinge moment due to the rear-face pressure remained fairly constant over most of the sweep-angle range, decreasing at the highest values of Λ . The front-face loading produces a greater proportion of the hinge moment than does the rear-face loading except at some of the largest sweep angles.

To examine more closely the effect of configuration and test-condition changes on the drag and hinge moments, direct comparisons showing most of the effects investigated are presented in figure 32. The comparison of the drag and hinge moments for configurations 2, 7, and 8 shows that at $\Lambda = 0^\circ$ and 75° there is little change due to decreasing the distance from the apex. At the intermediate sweep angles, the drag and hinge moments become much greater as the distance from the apex is decreased. At $\Lambda = 45^\circ$, the hinge moment measured on configuration 8 is even greater than that measured at $\Lambda = 0^\circ$.

The decreasing load on the swept spoiler outboard from the apex is in agreement with the variation of the spoiler section-load parameter on the 45° swept wing of reference 14. It must be remembered, of course, that the tests of reference 14 were made on a tapered wing, and the spoiler projection was based on the local chord so that part of the decrease shown is due to the change in spoiler height along the span.

Since in the present tests two stations of pressures were available on each configuration, by using the integrated results at both stations on configurations 2, 7, and 8, it is possible to show the drag and hinge-moment variations over a fairly large range of distances from the apex, as shown in figure 33. It appears from these curves that the greatest variations across the span occur for a sweep angle near 45° . It is interesting to note that this is near the angle at which the spoiler becomes parallel to the Mach line ($\Lambda = 52^\circ$) at this Mach number. The greatest changes with sweep are found at the smallest values of y/h , or nearest the apex. The peaks of the hinge-moment curves due to the effect of the apex occur at higher values of Λ than do the peaks of the drag curves.

Effect of fixing transition. - The comparison of the drag- and hinge-moment coefficient variations with sweep angle for configurations 2 and 6 (fig. 32) shows that the effect of fixing transition at this Reynolds number is negligible, as would be expected from the previous discussions.

Effect of spoiler height. - The drag- and hinge-moment-coefficient comparisons (fig. 32) show that at $\Lambda = 0^\circ$ the effect of decreasing the spoiler height is to decrease both the drag and hinge-moment coefficients. When the spoiler is swept, the comparison of configurations 2 and 3 does not show the effect of height alone, due to the differences in distance from the apex in terms of the spoiler height. The comparison of the curves shows a continuation of the trend previously shown due to increasing y/h . (See fig. 33.)

Effect of spoiler deflection angle. - Increasing the spoiler deflection angle from 45° to 90° causes little change in the drag and hinge moment at sweep angles less than 30° . As the spoiler sweep angle is increased above 30° , the drag- and hinge-moment coefficients for configuration 4 are first larger and then smaller than those for configuration 5.

Effect of actuator arms. - The actuator arms have no effect on the drag and hinge moments measured at this station at $\Lambda = 0^\circ$ and 15° , as shown by the comparison of configurations 3 and 9 (fig. 32). At higher sweep angles, the actuator arms increase both the drag and hinge moments. As pointed out in previous discussions, this may be a localized effect.

Effect of Mach number. - The drag- and hinge-moment coefficient variations with sweep angle of configuration 2 at the two test Mach numbers (fig. 32) show the same general shapes. The differences due to Mach number are greatest at $\Lambda = 0^\circ$ and gradually decrease with increasing Λ . At the largest sweep angles investigated there is very little change due to Mach number.

Effect of the end plate. - The addition of the end plate at the spoiler apex is shown by figures 30 and 31 to cause increases in both

drag and hinge moment, primarily due to the change in pressures on the front face at this station. (See fig. 24.)

Effect of Reynolds number.- The changes in drag and hinge moment with increasing Reynolds number are illustrated in figure 34. For most of the angular conditions, no effect of Reynolds number is evident; however, at the smallest sweep angles, there is a definite trend showing some small increases with increasing Reynolds number.

CONCLUSIONS

An investigation has been made at Mach numbers of 1.61 and 2.01 to examine the flow, force, and moment characteristics associated with spoilers mounted on a flat plate at sweep angles from 0° to 75° . The results of the tests indicate the following conclusions:

1. For the unswept condition, the pressure distributions along the plate and on the spoiler faces, and the force and moment characteristics of the spoilers could be correlated for a given Mach number on the basis of the height and location of the spoiler top.
2. The three-dimensional behavior of the flow over the swept spoilers and the limited data available precluded the establishment of any simple method for extending the unswept-spoiler results to the swept case.
3. Regions of reversal in lift effectiveness and large decreases in pitching moment were observed near the spoiler apex for the swept spoilers.
4. The section drag and hinge moments of the spoiler decreased as distance from the apex of the swept spoilers increased.
5. The simulated actuator arms caused localized changes in the flow over the swept spoilers.
6. The simple $\sqrt{M^2 - 1}$ relationship, where M is the Mach number, was successful in predicting the effects of Mach number only on the pressures downstream of the spoiler.

7. Within the ranges of the tests, varying the Reynolds number from 0.12×10^6 to 0.56×10^6 per inch, or fixing transition generally caused only small changes in pressures or integrated characteristics.

Langley Aeronautical Laboratory,
National Advisory Committee for Aeronautics,
Langley Field, Va., November 25, 1955.

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NACA RM L55L12

Table 01
Plate and Spoiler Pressure Coefficients
Configuration 2 $M = 1.61$ $R = 0.14 \times 10^6$

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Spoiler	
$\Delta = 00^\circ$									
-6.000	.008	.004	.027	.276	.389	.361			1 .495
-5.500	.004	.006	.068	.354	.357	.359			2 .447
-5.000	.012	.070	.338	.373	.403	.357			3 .433
-4.500	.276	.330	.396	.402	.405	.349			4 .453
-4.000	.367	.381	.421	.392	.405	.347			5 .501
-3.500	.394	.398	.431	.394	.403	.351	.373		6 .587
-3.000	.406	.408	.429	.402	.399	.361	.367		7 .531
-2.750	.406	.435	.400	.394	.393	.363	.395		8 .359
-2.500	.410	.410	.392	.392	.383	.369	.395		9 .359
-2.250	.439	.417	.386	.400	.381	.355	.391		10 .355
-2.000	.402	.412	.375	.389	.377	.379	.397		11 .357
-1.750	.421	.412	.369	.392	.375	.393	.397		12 .517
-1.500	.408	.404	.365	.389	.375	.407	.389		13 .513
-1.250	.359	.294	.361	.367	.387	.423	.377		14 .427
-1.000	.392	.383	.375	.367	.389	.447	.361		15 .465
-.750	.381	.381	.362	.381	.411	.491	.355		16 .531
-.625	.390	.388	.367	.392	.425	.501	.367		17 .629
-.500	.400	.415	.386	.408	.451	.517	.369		18 .699
-.375	.421	.423	.413	.446	.487	.537	.405		19 .357
-.250	.460	.471	.454	.502	.525	.543	.467		20 .353
-.125	.541	.524	.524	.543	.557	.557			21 .351
.000	.545	.547	.546	.589	.533	.535	.557		22 .352
$\Delta = 15^\circ$									
-6.000	.006	.004	.029	.305	.377	.292			1 .499
-5.500	.015	-.010	.182	.351	.379	.278			2 .445
-5.000	.077	.162	.344	.362	.379	.278			3 .421
-4.500	.303	.319	.381	.384	.369	.286			4 .481
-4.000	.361	.354	.388	.370	.363	.294	.351		5 .491
-3.500	.369	.371	.386	.373	.361	.306	.369		6 .357
-3.000	.375	.373	.381	.370	.359	.320	.371		7 .489
-2.750	.381	.406	.352	.378	.359	.335	.379		8 .347
-2.500	.381	.369	.352	.362	.359	.335	.381		9 .347
-2.250	.421	.390	.352	.362	.357	.341	.379		10 .345
-2.000	.379	.375	.352	.367	.359	.337	.387		11 .451
-1.750	.406	.386	.352	.378	.355	.349	.383		12 .491
-1.500	.390	.377	.352	.359	.347	.361	.377		13 .435
-1.250	.363	.375	.352	.351	.347	.381	.365		14 .417
-1.000	.373	.363	.351	.357	.355	.415	.359		15 .445
-.750	.357	.359	.351	.370	.379	.465	.345		16 .501
-.625	.367	.361	.357	.362	.407	.491	.347		17 .591
-.500	.381	.400	.367	.400	.635	.515	.367		18 .633
-.375	.410	.408	.413	.435	.671	.537	.391		19 .341
-.250	.456	.450	.454	.494	.515	.539	.443		20 .341
-.125	.531	.519			.535	.527			21 .341
.000	.539	.539	.532	.589	.521	.527	.529		22 .349
$\Delta = 15^\circ$									
-6.000	.006	.004	.029	.305	.377	.292			1 .499
-5.500	.015	-.010	.182	.351	.379	.278			2 .445
-5.000	.077	.162	.344	.362	.379	.278			3 .421
-4.500	.303	.319	.381	.384	.369	.286			4 .481
-4.000	.361	.354	.388	.370	.363	.294	.351		5 .491
-3.500	.369	.371	.386	.373	.361	.306	.369		6 .357
-3.000	.375	.373	.381	.370	.359	.320	.371		7 .489
-2.750	.381	.406	.352	.378	.359	.335	.379		8 .347
-2.500	.381	.369	.352	.362	.359	.335	.381		9 .347
-2.250	.421	.390	.352	.362	.357	.341	.379		10 .345
-2.000	.379	.375	.352	.367	.359	.337	.387		11 .451
-1.750	.406	.386	.352	.378	.355	.349	.383		12 .491
-1.500	.390	.377	.352	.359	.347	.361	.377		13 .435
-1.250	.363	.375	.352	.351	.347	.381	.365		14 .417
-1.000	.373	.363	.351	.357	.355	.415	.359		15 .445
-.750	.357	.359	.351	.370	.379	.465	.345		16 .501
-.625	.367	.361	.357	.362	.407	.491	.347		17 .591
-.500	.381	.400	.367	.400	.635	.515	.367		18 .633
-.375	.410	.408	.413	.435	.671	.537	.391		19 .341
-.250	.456	.450	.454	.494	.515	.539	.443		20 .341
-.125	.531	.519			.535	.527			21 .341
.000	.539	.539	.532	.589	.521	.527	.529		22 .349

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Table 01 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.14 \times 10^6$

x, in	Plate							Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = 30^\circ$								
-6.000	-0.10	0.08	0.05	0.28	0.65	0.282		1 0.359
-5.500	0.081	0.079	0.226	0.348	0.375	0.230		2 0.306
-5.000	0.274	0.282	0.350	0.357	0.359	0.216		3 0.306
-4.500	0.313	0.348	0.386	0.375	0.339	0.204		4 0.288
-4.000	0.334	0.350	0.379	0.351	0.288	0.200	308	5 0.324
-3.500	0.330	0.348	0.379	0.338	0.248	0.194	0.312	6 0.385
-3.000	0.323	0.342	0.342	0.297	0.216	0.196	0.310	7 0.335
-2.750	0.317	0.379	0.311	0.276	0.202	0.200	0.300	8 -0.326
-2.500	0.317	0.334	0.284	0.259	0.192	0.204	0.312	9 -0.330
-2.250	0.336	0.332	0.265	0.246	0.188	0.220	0.310	10 -0.332
-2.000	0.284	0.307	0.245	0.227	0.192	0.228	0.312	11 -0.326
-1.750	0.303	0.294	0.224	0.219	0.194	0.252	0.312	12 0.395
-1.500	0.267	0.265	0.207	0.211	0.194	0.268	0.314	13 0.363
-1.250	0.193	0.232	0.182	0.203	0.202	0.292	0.306	14 0.359
-1.000	0.220	0.228	0.211	0.200	0.220	0.326	0.308	15 0.383
-0.750	0.211	0.220	0.211	0.219	0.254	0.369	0.302	16 0.407
-0.625	0.220	0.230	0.219	0.243	0.282	0.393	0.306	17 0.423
-0.500	0.230	0.199	0.238	0.265	0.318	0.409	0.306	18 0.387
-0.375	0.255	0.280	0.265	0.308	0.365	0.425	0.318	19 -0.304
-0.250	0.309	0.323	0.330	0.384	0.403	0.421	0.357	20 -0.304
-0.125	0.408		0.424		0.413		0.415	21 -0.302
.000	0.431	0.444	0.446	0.432	0.419	0.425	0.419	22 -0.316
$\Delta = 45^\circ$								
-6.000	0.000	0.004	0.023	0.011	0.296	0.343		1 0.359
-5.500	0.060	0.021	0.044	0.200	0.351	0.232		2 0.337
-5.000	0.236	0.207	0.255	0.311	0.349	0.186		3 0.310
-4.500	0.288	0.298	0.332	0.340	0.328	0.172		4 0.296
-4.000	0.307		0.323	0.344	0.330	0.274	0.276	5 0.330
-3.500	0.303	0.317	0.344	0.313	0.216	0.200	0.270	6 0.399
-3.000	0.303	0.311	0.332	0.267	0.180	0.242	0.270	7 0.375
-2.750	0.294	0.350	0.267	0.240	0.166	0.272	0.268	8 -0.328
-2.500	0.272	0.296	0.236	0.208	0.198	0.298	0.264	9 -0.330
-2.250	0.286	0.272	0.195	0.176	0.150	0.324	0.254	10 0.335
-2.000	0.197	0.236	0.151	0.167	0.160	0.349	0.242	11 -0.332
-1.750	0.216	0.203	0.122	0.159	0.174	0.373	0.218	12 0.244
-1.500	0.188	0.166	0.091	0.149	0.202	0.385	0.198	13 0.206
-1.250	0.107	0.147	0.091	0.159	0.232	0.403	0.158	14 0.180
-1.000	0.135	0.145	0.146	0.197	0.276	0.411	0.194	15 +1.94
-0.750	0.155	0.166	0.181	0.243	0.330	0.429	0.116	16 0.228
-0.625	0.184	0.205	0.216	0.276	0.351	0.423	0.116	17 0.280
-0.500	0.232	0.228	0.257	0.321	0.373	0.423	0.130	18 0.288
-0.375	0.284	0.307	0.303	0.362	0.393	0.419	0.160	19 -0.294
-0.250	0.344	0.357	0.357	0.408	0.405	0.409	0.202	20 -0.266
-0.125	0.394		0.389	0.393	0.393		0.274	21 -0.232
.000	0.406	0.412	0.392	0.400	0.395	0.397	0.262	22 -0.250
$\Delta = 45^\circ$								
-6.000	0.000	0.004	0.023	0.011	0.296	0.343		1 0.359
-5.500	0.060	0.021	0.044	0.200	0.351	0.232		2 0.337
-5.000	0.236	0.207	0.255	0.311	0.349	0.186		3 0.310
-4.500	0.288	0.298	0.332	0.340	0.328	0.172		4 0.296
-4.000	0.307		0.323	0.344	0.330	0.274	0.276	5 0.330
-3.500	0.303	0.317	0.344	0.313	0.216	0.200	0.270	6 0.399
-3.000	0.303	0.311	0.332	0.267	0.180	0.242	0.270	7 0.375
-2.750	0.294	0.350	0.267	0.240	0.166	0.272	0.268	8 -0.328
-2.500	0.272	0.296	0.236	0.208	0.198	0.298	0.264	9 -0.330
-2.250	0.286	0.272	0.195	0.176	0.150	0.324	0.254	10 0.335
-2.000	0.197	0.236	0.151	0.167	0.160	0.349	0.242	11 -0.332
-1.750	0.216	0.203	0.122	0.159	0.174	0.373	0.218	12 0.244
-1.500	0.188	0.147	0.091	0.149	0.202	0.385	0.198	13 0.206
-1.250	0.107	0.147	0.091	0.159	0.232	0.403	0.158	14 0.180
-1.000	0.135	0.145	0.146	0.197	0.276	0.411	0.194	15 +1.94
-0.750	0.155	0.166	0.181	0.243	0.330	0.429	0.116	16 0.228
-0.625	0.184	0.205	0.216	0.276	0.351	0.423	0.116	17 0.280
-0.500	0.232	0.228	0.257	0.321	0.373	0.423	0.130	18 0.288
-0.375	0.284	0.307	0.303	0.362	0.393	0.419	0.160	19 -0.294
-0.250	0.344	0.357	0.357	0.408	0.405	0.409	0.202	20 -0.266
-0.125	0.394		0.389	0.393	0.393		0.274	21 -0.232
.000	0.406	0.412	0.392	0.400	0.395	0.397	0.262	22 -0.250
$\Delta = 45^\circ$								
-6.000	0.000	0.004	0.023	0.011	0.296	0.343		1 0.359
-5.500	0.060	0.021	0.044	0.200	0.351	0.232		2 0.337
-5.000	0.236	0.207	0.255	0.311	0.349	0.186		3 0.310
-4.500	0.288	0.298	0.332	0.340	0.328	0.172		4 0.296
-4.000	0.307		0.323	0.344	0.330	0.274	0.276	5 0.330
-3.500	0.303	0.317	0.344	0.313	0.216	0.200	0.270	6 0.399
-3.000	0.303	0.311	0.332	0.267	0.180	0.242	0.270	7 0.375
-2.750	0.294	0.350	0.267	0.240	0.166	0.272	0.268	8 -0.328
-2.500	0.272	0.296	0.236	0.208	0.198	0.298	0.264	9 -0.330
-2.250	0.286	0.272	0.195	0.176	0.150	0.324	0.254	10 0.335
-2.000	0.197	0.236	0.151	0.167	0.160	0.349	0.242	11 -0.332
-1.750	0.216	0.203	0.122	0.159	0.174	0.373	0.218	12 0.244
-1.500	0.188	0.147	0.091	0.149	0.202	0.385	0.198	13 0.206
-1.250	0.107	0.147	0.091	0.159	0.232	0.403	0.158	14 0.180
-1.000	0.135	0.145	0.146	0.197	0.276	0.411	0.194	15 +1.94
-0.750	0.155	0.166	0.181	0.243	0.330	0.429	0.116	16 0.228
-0.625	0.184	0.205	0.216	0.276	0.351	0.423	0.116	17 0.280
-0.500	0.232	0.228	0.257	0.321	0.373	0.423	0.130	18 0.288
-0.375	0.284	0.307	0.303	0.362	0.393	0.419	0.160	19 -0.294
-0.250	0.344	0.357	0.357	0.408	0.405	0.409	0.202	20 -0.266
-0.125	0.394		0.389	0.393	0.393		0.274	21 -0.232
.000	0.406	0.412	0.392	0.400	0.395	0.397	0.262	22 -0.250
$\Delta = 45^\circ$								
-6.000	0.000	0.004	0.023	0.011	0.296	0.343		1 0.359
-5.500	0.060	0.021	0.044	0.200	0.351	0.232		2 0.337
-5.000	0.236	0.207	0.255	0.311	0.349	0.186		3 0.310
-4.500	0.288	0.298	0.332	0.340	0.328	0.172		4 0.296
-4.000	0.307		0.323	0.344	0.330	0.274	0.276	5 0.330
-3.500	0.303	0.317	0.344	0.313	0.216	0.200	0.270	6 0.399
-3.000	0.303	0.311	0.332	0.267	0.180	0.242	0.270	7 0.375
-2.750	0.294	0.350	0.267	0.240	0.166	0.272	0.268	8 -0.328
-2.500	0.272	0.296	0.236	0.208	0.198	0.298	0.264	9 -0.330
-2.250	0.286	0.272	0.195	0.176	0.150	0.324	0.254	10 0.335
-2.000	0.197	0.236	0.151	0.167	0.160	0.349	0.242	11 -0.332
-1.750	0.216	0.203	0.122	0.159	0.174	0.373	0.218	12 0.244
-1.500	0.188	0.147	0.091	0.149	0.202	0.385	0.198	13 0.206
-1.250	0.107	0.147	0.091	0.159	0.232	0.403	0.158	14 0.180
-1.000	0.135	0.145	0.146	0.197	0.276	0.411	0.194	15 +1.94
-0.750	0.155	0.166	0.181	0.243	0.330	0.429	0.116	16 0.228
-0.625	0.184	0.205	0.216	0.276	0.351	0.423	0.116	17

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Table 01 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.14 \times 10^6$

x, in.	Plate							Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	-0.008	0.002	0.025	0.008	0.026	0.284		1	316
-5.500	0.004	0.002	0.019	0.019	0.110	0.284		2	320
-5.000	0.048	0.019	0.046	0.046	0.236	0.240		3	326
-4.500	0.126	0.097	0.129	0.203	0.264	0.166		4	330
-4.000	0.191	0.180	0.290	0.240	0.252	0.156		5	326
-3.500	0.220	0.226	0.259	0.251	0.232	0.196	212	6	310
-3.000	0.226	0.234	0.255	0.249	0.172	0.280		7	120
-2.750	0.226	0.284	0.257	0.238	0.142	0.326		8	-304
-2.500	0.226	0.243	0.247	0.219	0.134	0.353		9	-310
-2.250	0.245	0.249	0.228	0.178	0.142	0.369		10	-318
-2.000	0.193	0.232	0.207	0.151	0.166	0.365		11	-337
-1.750	0.205	0.205	0.168	0.154	0.208	0.371		12	-230
-1.500	0.153	0.153	0.158	0.167	0.262	0.365		13	224
-1.250	0.06	0.09	0.153	0.211	0.312	0.361		14	230
-1.000	0.158	0.191	0.205	0.284	0.328	0.359		15	246
-0.750	0.232	0.255	0.281	0.327	0.343	0.355		16	262
-0.625	0.274	0.292	0.297	0.346	0.337	0.349		17	270
-0.500	0.309	0.296	0.319	0.348	0.335	0.339		18	194
-0.375	0.311	0.336	0.330	0.348	0.337	0.341		19	-256
-0.250	0.319	0.334	0.330	0.362	0.337	0.337		20	-232
-0.125	0.327		0.330		0.330			21	-220
0.000	0.363	0.375	0.367	0.370	0.353	0.357		22	-234
$\Delta = 75^\circ$									
-6.000	0.002	0.012	0.023	0.000	0.004	0.116		1	.090
-5.500	0.019	0.010	0.023	0.003	0.026	0.180		2	.098
-5.000	0.044	0.021	0.023	0.000	0.034	0.166		3	.126
-4.500	0.075	0.066	0.064	0.076	0.132	0.142		4	.094
-4.000	0.081	0.095	0.112	0.100	0.130	0.114	060	5	.078
-3.500	0.073	0.093	0.112	0.097	0.112	0.100		6	.064
-3.000	0.073	0.095	0.017	0.089	0.100	0.088		7	-0.074
-2.750	0.056	0.147	0.077	0.085	0.098	0.092		8	-162
-2.500	0.073	0.077	0.075	0.081	0.094	0.086		9	-174
-2.250	0.110	0.104	0.075	0.081	0.086	0.086		10	-212
-2.000	0.064	0.087	0.075	0.081	0.080	0.090		11	-258
-1.750	0.099	0.093	0.066	0.092	0.074	0.092		12	.076
-1.500	0.079	0.091	0.066	0.089	0.082	0.100		13	.078
-1.250	0.044	0.097	0.064	0.073	0.094	0.104		14	.084
-1.000	0.068	0.085	0.076	0.084	0.102	0.104		15	.090
-0.750	0.068	0.079	0.078	0.095	0.108	0.100		16	.092
-0.625	0.081	0.091	0.078	0.095	0.104	0.104		17	.080
-0.500	0.095	0.081	0.086	0.097	0.104	0.102		18	.044
-0.375	0.087	0.106	0.092	0.103	0.104	0.100		19	-218
-0.250	0.093	0.104	0.097	0.124	0.108	0.100		20	-176
-0.125	0.102		0.097		0.104			21	-0.038
0.000	0.182	0.191	0.176	0.176	0.170	0.168		22	-0.084
$\Delta = 75^\circ$									
-6.000	0.002	0.012	0.023	0.000	0.004	0.116		1	.090
-5.500	0.019	0.010	0.023	0.003	0.026	0.180		2	.098
-5.000	0.044	0.021	0.023	0.000	0.034	0.166		3	.126
-4.500	0.075	0.066	0.064	0.076	0.132	0.142		4	.094
-4.000	0.081	0.095	0.112	0.100	0.130	0.114	060	5	.078
-3.500	0.073	0.093	0.112	0.097	0.112	0.100		6	.064
-3.000	0.073	0.095	0.017	0.089	0.100	0.088		7	-0.074
-2.750	0.056	0.147	0.077	0.085	0.098	0.092		8	-162
-2.500	0.073	0.077	0.075	0.081	0.094	0.086		9	-174
-2.250	0.110	0.104	0.075	0.081	0.086	0.086		10	-212
-2.000	0.064	0.087	0.075	0.081	0.080	0.090		11	-258
-1.750	0.099	0.093	0.066	0.092	0.074	0.092		12	.076
-1.500	0.079	0.091	0.066	0.089	0.082	0.100		13	.078
-1.250	0.044	0.097	0.064	0.073	0.094	0.104		14	.084
-1.000	0.068	0.085	0.076	0.084	0.102	0.104		15	.090
-0.750	0.068	0.079	0.078	0.095	0.108	0.100		16	.092
-0.625	0.081	0.091	0.078	0.095	0.104	0.104		17	.080
-0.500	0.095	0.081	0.086	0.097	0.104	0.102		18	.044
-0.375	0.087	0.106	0.092	0.103	0.104	0.100		19	-218
-0.250	0.093	0.104	0.097	0.124	0.108	0.100		20	-176
-0.125	0.102		0.097		0.104			21	-0.038
0.000	0.182	0.191	0.176	0.176	0.170	0.168		22	-0.084

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Table 02
Plate and Spoiler Pressure Coefficients
Configuration 2 $M = 1.61$ $R = 0.23 \times 10^6$

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 00^\circ$									
-6.000	-0.001	.005	.012	.288	.369			1	.528
-5.500	.002	.002	.058	.353	.396	.366		2	.467
-5.000	.006	.052	.318	.374	.403	.380		3	.453
-4.500	.271	.313	.277	.392	.411	.358		4	.480
-4.000	.359	.373	.399	.393	.412	.359	.358	5	.538
-3.500	.385	.390	.408	.403	.411	.383	.388	6	.636
-3.000	.396	.397	.413	.403	.406	.371	.396	7	.599
-2.750	.401	.414	.409	.405	.403	.372	.399	8	.432
-2.500	.401	.405	.411	.403	.395	.378	.405	9	.432
-2.250	.413	.414	.413	.400	.387	.383	.403	10	.432
-2.000	.403	.410	.409	.395	.382	.393	.406	11	.431
-1.750	.410	.410	.406	.387	.382	.406	.402	12	.539
-1.500	.400	.401	.388	.374	.382	.425	.395	13	.468
-1.250	.360	.389	.378	.369	.390	.447	.378	14	.447
-1.000	.378	.377	.369	.372	.405	.484	.364	15	.483
-0.750	.375	.375	.374	.387	.433	.521	.358	16	.550
-0.625	.380	.383	.382	.405	.454	.549	.369	17	.657
-0.500	.396	.386	.405	.429	.484	.563	.384	18	.712
-0.375	.419	.427	.436	.465	.520	.591	.418	19	.547
-0.250	.466	.478	.489	.521	.572	.596	.477	20	.546
-0.125	.560	.568	.568	.597	.597	.597	.575	21	.547
.000	.573	.574	.570	.572	.580	.578	.582	22	.547
$\Delta = 15^\circ$									
-6.000	.002	.005	.015	.309	.383	.303		1	.514
-5.500	.000	.005	.195	.356	.382	.294		2	.461
-5.000	.060	.170	.333	.368	.381	.294		3	.447
-4.500	.292	.321	.364	.376	.379	.304		4	.466
-4.000	.364	.355	.369	.368	.372	.311	.358	5	.516
-3.500	.359	.364	.374	.371	.372	.323	.376	6	.591
-3.000	.377	.375	.374	.372	.372	.339	.379	7	.526
-2.750	.377	.365	.377	.372	.372	.343	.381	8	.437
-2.500	.379	.380	.379	.374	.370	.346	.387	9	.437
-2.250	.391	.386	.379	.368	.369	.349	.385	10	.437
-2.000	.379	.388	.383	.371	.369	.349	.387	11	.433
-1.750	.389	.389	.383	.374	.361	.358	.383	12	.503
-1.500	.386	.388	.377	.368	.355	.373	.373	13	.442
-1.250	.340	.379	.364	.356	.355	.395	.361	14	.421
-1.000	.358	.359	.351	.351	.369	.432	.348	15	.454
-0.750	.350	.354	.355	.364	.397	.485	.346	16	.508
-0.625	.362	.363	.364	.381	.425	.511	.353	17	.599
-0.500	.380	.372	.385	.406	.456	.538	.366	18	.648
-0.375	.408	.415	.418	.445	.496	.566	.395	19	.434
-0.250	.457	.463	.473	.505	.549	.570	.451	20	.431
-0.125	.548	.552	.552	.557	.572	.572	.536	21	.431
.000	.553	.558	.552	.560	.561	.538		22	.431
$\Delta = 15^\circ$									
-6.000	.002	.005	.015	.309	.383	.303		1	.514
-5.500	.000	.005	.195	.356	.382	.294		2	.461
-5.000	.060	.170	.333	.368	.381	.294		3	.447
-4.500	.292	.321	.364	.376	.379	.304		4	.466
-4.000	.364	.355	.369	.368	.372	.311	.358	5	.516
-3.500	.359	.364	.374	.371	.372	.323	.376	6	.591
-3.000	.377	.375	.374	.372	.372	.339	.379	7	.526
-2.750	.377	.365	.377	.372	.372	.343	.381	8	.437
-2.500	.379	.380	.379	.374	.370	.346	.387	9	.437
-2.250	.391	.386	.379	.368	.369	.349	.385	10	.437
-2.000	.379	.388	.383	.371	.369	.349	.387	11	.433
-1.750	.389	.389	.383	.374	.361	.358	.383	12	.503
-1.500	.386	.388	.377	.368	.355	.373	.373	13	.442
-1.250	.340	.379	.364	.356	.355	.395	.361	14	.421
-1.000	.358	.359	.351	.351	.369	.432	.348	15	.454
-0.750	.350	.354	.355	.364	.397	.485	.346	16	.508
-0.625	.362	.363	.364	.381	.425	.511	.353	17	.599
-0.500	.380	.372	.385	.406	.456	.538	.366	18	.648
-0.375	.408	.415	.418	.445	.496	.566	.395	19	.434
-0.250	.457	.463	.473	.505	.549	.570	.451	20	.431
-0.125	.548	.552	.552	.557	.572	.572	.536	21	.431
.000	.553	.558	.552	.560	.561	.538		22	.431
$\Delta = 15^\circ$									
-6.000	.002	.005	.015	.309	.383	.303		1	.514
-5.500	.000	.005	.195	.356	.382	.294		2	.461
-5.000	.060	.170	.333	.368	.381	.294		3	.447
-4.500	.292	.321	.364	.376	.379	.304		4	.466
-4.000	.364	.355	.369	.368	.372	.311	.358	5	.516
-3.500	.359	.364	.374	.371	.372	.323	.376	6	.591
-3.000	.377	.375	.374	.372	.372	.339	.379	7	.526
-2.750	.377	.365	.377	.372	.372	.343	.381	8	.437
-2.500	.379	.380	.379	.374	.370	.346	.387	9	.437
-2.250	.391	.386	.379	.368	.369	.349	.385	10	.437
-2.000	.379	.388	.383	.371	.369	.349	.387	11	.433
-1.750	.389	.389	.383	.374	.361	.358	.383	12	.503
-1.500	.386	.388	.377	.368	.355	.373	.373	13	.442
-1.250	.340	.379	.364	.356	.355	.395	.361	14	.421
-1.000	.358	.359	.351	.351	.369	.432	.348	15	.454
-0.750	.350	.354	.355	.364	.397	.485	.346	16	.508
-0.625	.362	.363	.364	.381	.425	.511	.353	17	.599
-0.500	.380	.372	.385	.406	.456	.538	.366	18	.648
-0.375	.408	.415	.418	.445	.496	.566	.395	19	.434
-0.250	.457	.463	.473	.505	.549	.570	.451	20	.431
-0.125	.548	.552	.552	.557	.572	.572	.536	21	.431
.000	.553	.558	.552	.560	.561	.538		22	.431

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Table 02 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.23 \times 10^6$

x, in	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.
$\Delta = 30^\circ$								
-6.000	-001	.001	.015	.241	.365	.294		1 .375
-5.500	.096	.071	.220	.347	.364	.250		2 .312
-5.000	.281	.287	.334	.358	.364	.229		3 .295
-4.500	.317	.332	.362	.369	.339	.221		4 .305
-4.000	.332	.339	.362	.358	.300	.219	.317	5 .340
-3.500	.328	.338	.358	.338	.262	.211	.317	6 .396
-3.000	.327	.336	.347	.306	.231	.211	.317	7 .335
-2.750	.327	.349	.332	.285	.216	.214	.313	8 -.325
-2.500	.324	.332	.318	.264	.213	.217	.318	9 -.328
-2.250	.327	.322	.297	.251	.203	.226	.317	10 -.328
-2.000	.297	.304	.277	.232	.202	.235	.317	11 -.324
-1.750	.296	.280	.257	.222	.203	.256	.321	12 .406
-1.500	.268	.261	.232	.207	.207	.277	.321	13 .366
-1.250	.224	.240	.217	.206	.214	.303	.317	14 .366
-1.000	.230	.226	.212	.207	.234	.340	.313	15 .388
-.750	.217	.220	.212	.223	.271	.384	.310	16 .412
-.625	.225	.225	.220	.240	.298	.405	.309	17 .441
-.500	.237	.234	.243	.270	.330	.430	.316	18 .389
-.375	.261	.271	.274	.311	.379	.445	.331	19 -.299
-.250	.316	.322	.330	.371	.425	.443	.365	20 -.297
-.125	.413		.416		.438		.431	21 -.295
.000	.419	.422	.416	.416	.425	.421	.436	22 -.300
$\Delta = 45^\circ$								
-6.000	-001	.000	.011	.008	.311	.345		1 .369
-5.500	.063	.006	.024	.223	.353	.253		2 .348
-5.000	.240	.200	.257	.311	.346	.204		3 .309
-4.500	.285	.285	.316	.334	.329	.192		4 .298
-4.000	.294	.304	.322	.329	.287	.204	.281	5 .330
-3.500	.291	.302	.322	.314	.233	.220	.274	6 .394
-3.000	.291	.299	.317	.275	.195	.258	.269	7 .382
-2.750	.291	.309	.297	.246	.185	.286	.269	8 -.322
-2.500	.280	.263	.304	.303	.313	.305	.286	9 -.327
-2.250	.236	.279	.288	.307	.304		.269	10 -.325
-2.000	.209	.208	.227	.275	.304	.299	.249	11 -.324
-.250	.176	.184	.230	.261	.299	.298	.226	12 .253
-.500	.153	.160	.196	.244	.293	.298	.207	13 .209
-.750	.127	.143	.178	.227	.285	.293	.184	14 .185
-.125	.109	.124	.164	.211	.277	.298	.164	15 .198
3.500	.082	.101	.123	.185	.261	.291		16 .234
4.000	.060	.072	.113	.160	.244	.286		17 .285
4.500	.057	.053	.094	.140	.222	.281		18 .281
5.000	.051	.036	.079	.121	.207	.274		19 -.285
5.500	.056	.029	.066	.106	.186	.268		20 -.263
6.000	.032	.024	.055	.094	.166	.253		21 -.219

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Table 02 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.23 \times 10^6$

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	.002	.001	.010	.008	.022	.292		1	.330
-5.500	.006	.004	.009	.010	.125	.277		2	.330
-5.000	.030	.006	.014	.044	.247	.210		3	.335
-4.500	.132	.083	.106	.194	.269	.154		4	.335
-4.000	.190	.178	.206	.233	.262	.168	.214	5	.327
-3.500	.211	.215	.234	.238	.232	.221	.220	6	.310
-3.000	.220	.224	.237	.236	.157	.319	.219	7	.074
-2.750	.220	.240	.231	.225	.139	.358	.216	8	.287
-2.500	.220	.230	.230	.196	.146	.384	.219	9	.298
-2.250	.226	.230	.217	.152	.158	.391	.214	10	.301
-2.000	.201	.211	.183	.130	.192	.384	.209	11	.321
-1.750	.180	.174	.137	.144	.247	.384	.192	12	.250
-1.500	.129	.132	.127	.168	.310	.381	.158	13	.253
-1.250	.102	.138	.153	.230	.346	.373	.133	14	.259
-1.000	.168	.191	.232	.301	.358	.371	.138	15	.275
-0.750	.253	.275	.301	.342	.364	.364	.169	16	.281
-0.625	.294	.304	.322	.345	.359	.363	.195	17	.282
-0.500	.319	.302	.330	.347	.352	.355	.217	18	.178
-0.375	.322	.332	.335	.340	.349	.349	.235	19	.250
-0.250	.326	.331	.332	.347	.348	.346	.250	20	.229
-0.125	.332		.335		.341		.259	21	.210
.000	.340	.344	.345	.342	.347	.346	.257	22	.220
$\Delta = 75^\circ$									
-6.000	.011	.006	.011	.006	.007	.116		1	.091
-5.500	.025	.009	.010	.010	.023	.172		2	.094
-5.000	.050	.014	.015	.013	.094	.162		3	.101
-4.500	.078	.051	.052	.076	.131	.137		4	.086
-4.000	.078	.082	.094	.112	.124	.115	.062	5	.079
-3.500	.076	.082	.101	.102	.110	.097	.062	6	.059
-3.000	.070	.077	.091	.096	.095	.091	.065	7	.095
-2.750	.071	.088	.084	.091	.088	.090	.065	8	.154
-2.500	.072	.073	.081	.086	.086	.089	.065	9	.170
-2.250	.086	.076	.078	.083	.076	.088	.062	10	.191
-2.000	.065	.076	.080	.081	.071	.091	.064	11	.252
-1.750	.084	.077	.080	.084	.070	.095	.065	12	.073
-1.500	.081	.077	.075	.081	.078	.098	.065	13	.073
-1.250	.057	.077	.075	.078	.086	.107	.067	14	.07
-1.000	.068	.068	.074	.087	.095	.107	.066	15	.083
-0.750	.070	.070	.079	.094	.103	.110	.052	16	.080
-0.625	.077	.076	.084	.096	.102	.106	.054	17	.071
-0.500	.087	.081	.089	.100	.100	.104	.060	18	.029
-0.375	.089	.088	.094	.104	.100	.104	.065	19	.221
-0.250	.092	.089	.096	.110	.102	.101	.073	20	.181
-0.125	.099		.099		.098		.078	21	.032
.000	.128	.123	.126	.126	.121	.121	.078	22	.087
$\Delta = 75^\circ$									
-6.000	.148	.140	.136	.133			.219		
-5.750	.143	.140	.130	.123	.113		.208		
-5.500	.162	.153	.141	.121	.101		.181		
-5.000	.189	.229	.222	.134	.088	.072	.169		
-4.500	.116	.167	.257	.188	.060	.041	.134		
-4.000	.007	.122	.223	.222	.007	.005	.082		
-3.500	.055	.053	.175	.227	.025	.037	.024		
-3.000	.071	.005	.136	.180	.044	.044	.032		
-2.750	.097	.020	.086	.133	.026	.028	.064		
-2.500	.084	.027	.081	.079	.005	.022	.067		
-2.250	.067	.031	.049	.036	.022	.026	.060		
-2.000	.042	.034	.042	.010	.014	.017	.047		
-1.750	.025	.032	.037	.022	.005	.119	.036		
-1.500	.000	.006	.019	.049	.049	.085			
-1.250	.019	.006	.018	.038	.047	.076			
-1.000	.025	.011	.011	.036	.030	.187			
-0.750	.019	.001	.011	.037	.031	.174			
-0.500	.010	.007	.008	.040	.032	.154			
-0.375	.011	.019				.142			

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Table 03
Plate and Spoiler Pressure Coefficients
Configuration 2 $M = 1.61$ $R = 0.30 \times 10^6$

x , in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6,000	.008	.004	.012	.290	.386	.370		1	.534
-5,500	.004	.006	.044	.363	.395	.366		2	.473
-5,000	.008	.035	.313	.383	.404	.362		3	.459
-4,500	.269	.310	.374	.402	.413	.364		4	.485
-4,000	.363	.372	.396	.406	.418	.365	.357	5	.545
-3,500	.392	.392	.406	.411	.418	.369	.387	6	.635
-3,000	.403	.403	.415	.417	.409	.374	.400	7	.586
-2,750	.407	.410	.412	.418	.403	.377	.403	8	.352
-2,500	.410	.409	.413	.415	.398	.382	.409	9	.354
-2,250	.418	.416	.415	.411	.391	.389	.407	10	.353
-2,000	.410	.414	.411	.403	.386	.398	.410	11	.352
-1,750	.418	.415	.397	.397	.383	.408	.406	12	.558
-1,500	.410	.405	.392	.386	.384	.432	.399	13	.479
-1,250	.381	.395	.379	.381	.393	.453	.381	14	.459
-1,000	.384	.384	.385	.383	.409	.487	.366	15	.500
-750	.381	.381	.387	.396	.437	.530	.363	16	.571
-625	.390	.388	.397	.413	.457	.547	.373	17	.686
-500	.402	.392	.420	.433	.484	.572	.389	18	.746
-375	.427	.421	.448	.471	.523	.594	.424	19	.348
-250	.475	.479	.498	.526	.574	.602	.491	20	.353
-125	.587		.581		.601		.595	21	.351
000	.581		.583		.584		.605	22	.350
$\Delta = 15^\circ$									
-6,000	.005	.001	.013	.314	.380	.308		1	.524
-5,500	.006	.001	.184	.361	.381	.298		2	.440
-5,000	.046	.145	.330	.365	.381	.303		3	.450
-4,500	.295	.315	.361	.376	.378	.309		4	.477
-4,000	.351	.351	.369	.372	.375	.316	.357	5	.524
-3,500	.372	.364	.377	.375	.376	.327	.372	6	.605
-3,000	.385	.374	.381	.378	.377	.343	.381	7	.533
-2,750	.388	.384	.376	.378	.375	.349	.382	8	.349
-2,500	.390	.385	.382	.378	.374	.353	.385	9	.351
-2,250	.397	.390	.384	.378	.373	.353	.386	10	.353
-2,000	.395	.391	.384	.381	.370	.355	.387	11	.349
-1,750	.400	.395	.387	.383	.370	.361	.382	12	.504
-1,500	.395	.389	.381	.376	.361	.376	.374	13	.443
-1,250	.361	.381	.369	.363	.358	.402	.362	14	.424
-1,000	.366	.364	.361	.355	.373	.442	.351	15	.455
-750	.358	.357	.363	.370	.407	.492	.347	16	.511
-625	.368	.368	.372	.387	.432	.522	.355	17	.600
-500	.387	.376	.396	.416	.465	.550	.368	18	.642
-375	.418	.420	.431	.456	.507	.578	.396	19	.342
-250	.473	.474	.486	.513	.561	.585	.452	20	.244
-125	.561		.565		.583		.539	21	.346
000	.566		.565		.560		.543	22	.344
$\Delta = 15^\circ$									
-6,000	.005	.001	.013	.314	.380	.308		1	.524
-5,500	.006	.001	.184	.361	.381	.298		2	.440
-5,000	.046	.145	.330	.365	.381	.303		3	.450
-4,500	.295	.315	.361	.376	.378	.309		4	.477
-4,000	.351	.351	.369	.372	.375	.316	.357	5	.524
-3,500	.372	.364	.377	.375	.376	.327	.372	6	.605
-3,000	.385	.374	.381	.378	.377	.343	.381	7	.533
-2,750	.388	.384	.376	.378	.375	.349	.382	8	.349
-2,500	.390	.385	.382	.378	.374	.353	.385	9	.351
-2,250	.397	.390	.384	.378	.373	.353	.386	10	.353
-2,000	.395	.391	.384	.381	.370	.355	.387	11	.349
-1,750	.400	.395	.387	.383	.370	.361	.382	12	.504
-1,500	.395	.389	.381	.376	.361	.376	.374	13	.443
-1,250	.361	.381	.369	.363	.358	.402	.362	14	.424
-1,000	.366	.364	.361	.355	.373	.442	.351	15	.455
-750	.358	.357	.363	.370	.407	.492	.347	16	.511
-625	.368	.368	.372	.387	.432	.522	.355	17	.600
-500	.387	.376	.396	.416	.465	.550	.368	18	.642
-375	.418	.420	.431	.456	.507	.578	.396	19	.342
-250	.473	.474	.486	.513	.561	.585	.452	20	.244
-125	.561		.565		.583		.539	21	.346
000	.566		.565		.560		.543	22	.344
$\Delta = 15^\circ$									
-6,000	.005	.001	.013	.314	.380	.308		1	.524
-5,500	.006	.001	.184	.361	.381	.298		2	.440
-5,000	.046	.145	.330	.365	.381	.303		3	.450
-4,500	.295	.315	.361	.376	.378	.309		4	.477
-4,000	.351	.351	.369	.372	.375	.316	.357	5	.524
-3,500	.372	.364	.377	.375	.376	.327	.372	6	.605
-3,000	.385	.374	.381	.378	.377	.343	.381	7	.533
-2,750	.388	.384	.376	.378	.375	.349	.382	8	.349
-2,500	.390	.385	.382	.378	.374	.353	.385	9	.351
-2,250	.397	.390	.384	.378	.373	.353	.386	10	.353
-2,000	.395	.391	.384	.381	.370	.355	.387	11	.349
-1,750	.400	.395	.387	.383	.370	.361	.382	12	.504
-1,500	.395	.389	.381	.376	.361	.376	.374	13	.443
-1,250	.361	.381	.369	.363	.358	.402	.362	14	.424
-1,000	.366	.364	.361	.355	.373	.442	.351	15	.455
-750	.358	.357	.363	.370	.407	.492	.347	16	.511
-625	.368	.368	.372	.387	.432	.522	.355	17	.600
-500	.387	.376	.396	.416	.465	.550	.368	18	.642
-375	.418	.420	.431	.456	.507	.578	.396	19	.342
-250	.473	.474	.486	.513	.561	.585	.452	20	.244
-125	.561		.565		.583		.539	21	.346
000	.566		.565		.560		.543	22	.344

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Table 03 Continued
Plate and Spoiler Pressure Coefficients
Configuration 2 M = 1.61 R = 0.30 x 10⁶

x, in.	Plate							Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = 30^\circ$								
-6.000	.008	.008	.017	.244	.361	.307		1 .378
-5.500	.089	.070	.217	.352	.362	.257		2 .318
-5.000	.285	.289	.340	.371	.362	.238		3 .300
-4.500	.523	.335	.363	.377	.341	.231		4 .310
-4.000	.335	.346	.364	.370	.305	.225		5 .344
-3.500	.333	.344	.361	.350	.266	.217		6 .396
-3.000	.334	.344	.355	.319	.236	.217		7 .334
-2.750	.337	.350	.334	.299	.226	.220		8 .324
-2.500	.333	.338	.325	.276	.219	.222		9 .325
-2.250	.331	.326	.300	.259	.208	.231		10 .327
-2.000	.312	.308	.286	.244	.207	.242		11 .321
-1.750	.303	.289	.263	.234	.206	.262		12 .408
-1.500	.279	.266	.237	.220	.210	.282		13 .373
-1.250	.247	.247	.221	.211	.220	.308		14 .372
-1.000	.237	.230	.226	.216	.239	.345		15 .391
-0.750	.230	.225	.226	.234	.277	.386		16 .417
-0.625	.234	.231	.236	.251	.302	.407		17 .445
-0.500	.243	.238	.262	.277	.336	.432		18 .387
-0.375	.271	.275	.294	.319	.382	.452		19 .301
-0.250	.323	.328	.347	.381	.427	.449		20 .301
-0.125	.420		.436		.445			21 .297
.000	.429	.428	.432	.426	.427	.429		22 .301
$\Delta = 45^\circ$								
-6.000	.005	-.001	.010	.006	.306	.350		1 .369
-5.500	.047	.001	.012	.212	.348	.264		2 .349
-5.000	.237	.194	.244	.307	.343	.211		3 .310
-4.500	.285	.283	.311	.332	.351	.203		4 .300
-4.000	.223		.302	.331	.289	.207		5 .332
-3.500	.299		.324	.321	.240	.222		6 .397
-3.000	.293		.318	.280	.200	.260		7 .359
-2.750	.293		.310	.295	.247	.185		8 .329
-2.500	.265		.290	.275	.222	.183		9 .331
-2.250	.271		.268	.241	.196	.175		10 .333
-2.000	.237		.237	.213	.178	.161		11 .329
-1.750	.207		.202	.179	.162	.191		12 .252
-1.500	.173		.184	.155	.155	.211		13 .203
-1.250	.119		.138	.164	.220	.286		14 .181
-1.000	.102		.117	.150	.210	.279		15 .182
-0.750	.079		.092	.112	.181	.242		16 .244
-0.625	.055		.067	.101	.157	.244		17 .286
-0.500	.048		.050	.084	.137	.223		18 .282
-0.400	.044		.024	.069	.118	.205		19 .278
-0.300	.043		.025	.060	.106	.183		20 .268
-0.200	.027		.018	.046	.093	.168		21 .261
								22 .222

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Table 03 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.30 \times 10^6$

x , in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Spoiler Orifice No.
$\Delta = 60^\circ$								
-6.000	.003	-.001	.006	.005	.007	.281		1 .339
-5.500	.005	.001	.005	.004	.150	.267		2 .340
-5.000	.032	.002	.007	.057	.250	.186		3 .345
-4.500	.144	.088	.115	.210	.267	.146		4 .345
-4.000	.199	.188	.213	.241	.257	.162	.215	5 .340
-3.500	.221	.221	.237	.244	.216	.225	.219	6 .321
-3.000	.231	.229	.237	.242	.144	.331	.219	7 .042
-2.750	.229	.234	.234	.226	.130	.375	.216	8 .308
-2.500	.229	.229	.231	.191	.139	.399	.219	9 .313
-2.250	.234	.227	.215	.146	.155	.408	.214	10 .318
-2.000	.208	.207	.173	.125	.193	.401	.205	11 .339
-1.750	.177	.161	.125	.139	.255	.397	.188	12 .247
-1.500	.128	.124	.124	.170	.321	.395	.156	13 .250
-1.250	.115	.135	.156	.240	.358	.387	.129	14 .257
-1.000	.178	.192	.242	.320	.369	.383	.133	15 .269
-.750	.266	.281	.322	.356	.373	.379	.169	16 .284
-.625	.312	.316	.341	.357	.370	.371	.189	17 .283
-.500	.334	.327	.352	.357	.360	.367	.212	18 .172
-.375	.337	.343	.352	.355	.360	.362	.232	19 .262
-.250	.342	.340	.350	.356	.357	.357	.249	20 .242
-.125	.348	.351			.349		.257	21 .221
+.000	.348	.346	.353	.350	.350	.347	.255	22 .227
$\Delta = 75^\circ$								
-6.000	.011	.003	.008	.005	.010	.123		1 .094
-5.500	.017	.003	.008	.006	.021	.177		2 .098
-5.000	.046	.007	.012	.012	.093	.167		3 .097
-4.500	.075	.045	.048	.077	.135	.140		4 .091
-4.000	.081	.080	.095	.109	.128	.119	.066	5 .081
-3.500	.075	.083	.103	.102	.116	.107	.068	6 .085
-3.000	.071	.077	.096	.095	.104	.101	.066	7 .110
-2.750	.071	.087	.088	.089	.097	.100	.066	8 .157
-2.500	.071	.075	.083	.085	.089	.098	.066	9 .175
-2.250	.081	.077	.082	.084	.076	.098	.063	10 .200
-2.000	.069	.078	.080	.082	.073	.098	.065	11 .256
-1.750	.082	.080	.081	.082	.079	.102	.064	12 .073
-1.500	.079	.079	.075	.070	.087	.106	.065	13 .075
-1.250	.055	.080	.069	.080	.098	.115	.065	14 .078
-1.000	.068	.070	.087	.091	.107	.116	.062	15 .082
-.750	.075	.080	.094	.097	.111	.116	.052	16 .080
-.625	.082	.082	.100	.099	.111	.111	.055	17 .057
-.500	.091	.075	.101	.101	.107	.109	.060	18 .016
-.375	.093	.096	.106	.102	.109	.109	.069	19 .-228
-.250	.100	.096	.109	.109	.109	.107	.075	20 .-171
-.125	.104	.107			.106		.080	21 .-044
+.000	.117	.116	.122	.114	.117	.116	.078	22 .-064
$\Delta = 75^\circ$								
-6.000	-.152	-.145	-.131	-.134			-.223	
-5.500	-.145	-.141	-.125	-.126	-.111		-.215	
-5.000	-.166	-.153	-.132	-.120	-.102		-.186	
-4.500	-.190	-.239	-.211	-.136	-.091	-.076	-.178	
-4.000	-.129	-.184	-.264	-.179	-.070	-.050	-.144	
-3.500	-.001	-.127	-.220	-.231	-.030	-.013	-.089	
-3.000	.043	-.056	-.169	-.239	.001	.017	-.033	
-2.750	.053	-.005	-.130	-.184	.028	.035	-.020	
-2.500	-.103	.018	-.087	-.135	.031	.026	-.052	
-2.250	-.092	.022	-.071	-.088	.003	.014	-.069	
-2.000	-.077	.024	-.045	-.048	.016	.013	-.066	
-1.750	-.051	.028	-.040	-.023	.013	.024	-.046	
-1.500	-.032	.034	-.032	.006	.005	.131	-.033	
-3.500	-.003	.010	-.022	.045	.040	.085		
-.4.000	.015	-.010	-.017	.038	.051	.081		
-.5.000	.024	-.013	-.017	.035	.028	.195		
-.5.500	.017	-.008	-.015	.037	.027	.186		
-.6.000	.008	.001	-.011	.039	.031	.176		
-.6.500	.007	.012	-.006	.041	.026	.160		

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Table 04
* Plate and Spoiler Pressure Coefficients
Configuration 2 $M = 1.61$ $R = 0.45 \times 10^6$

x , in.	Plate							Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6.000	*006	*004	*007	*255	*394	*381		1	*554
-5.000	*002	*010	*261	*356	*402	*376		2	*491
-4.500	*213	*277	*366	*412	*422	*373		3	*477
-4.000	*358	*369	*397	*417	*431	*376		4	*505
-3.500	*397	*398	*412	*426	*431	*379		5	*560
-3.000	*410	*414	*418	*432	*426	*386		6	*657
-2.750	*415	*423	*425	*433	*421	*390		7	*493
-2.500	*421	*425	*427	*431	*414	*395		8	-*355
-2.250	*427	*429	*429	*427	*406	*404		9	-*355
-2.000	*422	*429	*426	*421	*401	*412		10	-*356
-1.750	*429	*427	*421	*414	*400	*425		11	-*354
-1.500	*421	*421	*405	*403	*401	*414		12	*581
-1.250	*394	*407	*396	*398	*407	*463		13	*498
-1.000	*396	*397	*400	*400	*419	*492		14	*479
-0.750	*394	*395	*403	*414	*445	*529		15	*521
-0.625	*402	*400	*413	*426	*467	*551		16	*600
-0.500	*416	*428	*432	*449	*496	*573		17	*725
-0.375	*446	*421	*465	*486	*535	*599		18	*786
-0.250	*495	*500	*516	*542	*585	*610		19	-*350
-0.125	*586		*599		*616			20	-*352
*0.000	*597	*599	*602	*599	*602	*600		21	-*355
								22	-*353
*0.250	-*357	-*358	-*349	-*349					-*353
*0.375	-*360	-*360	-*354	-*352	-*346				-*356
*0.500	-*362	-*360	-*356	-*355	-*346				-*359
*0.750	-*364	-*362	-*358	-*354	-*350	-*349			-*359
1.000	-*360	-*348	-*357	-*358	-*351	-*350			-*353
1.250	-*341	-*343	-*347	-*346	-*351	-*350			-*334
1.500	-*312	-*321	-*331	-*338	-*352	-*353			-*307
1.750	-*259	-*287	-*307	-*322	-*350	-*353			-*274
2.000	-*245	-*258	-*269	-*297	-*344	-*352			-*239
2.250	-*212	-*227	-*244	-*275	-*334	-*353			-*209
2.500	-*185	-*197	-*199	-*250	-*322	-*352			-*179
2.750	-*161	-*176	-*176	-*224	-*306	-*350			-*154
3.000	-*137	-*147	-*155	-*201	-*293	-*354			-*133
3.500	-*107	-*112	-*121	-*163	-*261	-*353			
4.000	-*103	-*086	-*097	-*133	-*239	-*346			
4.500	-*072	-*070	-*079	-*109	-*208	-*339			
5.000	-*065	-*094	-*065	-*087	-*177	-*331			
5.500	-*090	-*055	-*052	-*065	-*143	-*299			
6.000	-*056	-*048	-*038	-*046	-*093	-*242			
$\Delta = 15^\circ$									
-6.000	-*001	*005	*007	*300	*385	*326		1	*557
-5.000	*004	*004	*125	*359	*386	*311		2	*491
-5.500	*015	*076	*310	*379	*392	*307		3	*472
-4.500	*259	*300	*357	*388	*392	*313		4	*504
-4.000	*349	*354	*372	*386	*387	*324		5	*566
-3.500	*377	*372	*382	*388	*385	*337		6	*665
-3.000	*392	*385	*385	*390	*385	*355		7	*488
-2.750	*395	*395	*391	*393	*384	*362		8	-*350
-2.500	*402	*399	*395	*392	*386	*364		9	-*350
-2.250	*407	*403	*398	*394	*385	*363		10	-*352
-2.000	*402	*405	*403	*396	*386	*361		11	-*348
-1.750	*412	*407	*403	*398	*380	*370		12	*512
-1.500	*407	*405	*395	*392	*373	*386		13	*453
-1.250	*378	*395	*380	*379	*372	*414		14	*436
-1.000	*372	*375	*378	*371	*389	*456		15	*457
-0.750	*365	*364	*378	*387	*422	*511		16	*512
-0.625	*377	*377	*392	*409	*4451	*542		17	*593
-0.500	*394	*398	*416	*438	*488	*572		18	*686
-0.375	*433	*415	*455	*481	*531	*602		19	-*342
-0.250	*490	*497	*515	*541	*589	*614		20	-*344
-0.125	*592		*605		*617			21	-*346
*0.000	*598	*598	*604	*601	*604	*549		22	-*344
*0.250	-*350	-*349	-*344	-*341					-*342
*0.375	-*354	-*356	-*347	-*344	-*338				-*344
*0.500	-*359	-*355	-*347	-*347	-*339				-*345
*0.750	-*362	-*341	-*349	-*347	-*340				-*347
1.000	-*356	-*347	-*347	-*349	-*341	-*340			-*342
1.250	-*343	-*341	-*345	-*348	-*340	-*340			-*327
1.500	-*314	-*323	-*329	-*334	-*341	-*340			-*299
1.750	-*262	-*297	-*308	-*324	-*341	-*338			-*269
2.000	-*250	-*270	-*276	-*305	-*338	-*338			-*237
2.250	-*221	-*241	-*256	-*284	-*334	-*340			-*209
2.500	-*193	-*213	-*226	-*263	-*328	-*337			-*184
2.750	-*174	-*189	-*201	-*241	-*314	-*337			-*161
3.000	-*153	-*166	-*178	-*221	-*301	-*341			-*145
3.500	-*124	-*130	-*137	-*182	-*263	-*338			
4.000	-*093	-*101	-*112	-*149	-*229	-*334			
4.500	-*076	-*084	-*094	-*122	-*199	-*325			
5.000	-*060	-*099	-*079	-*101	-*176	-*316			
5.500	-*079	-*063	-*072	-*086	-*152	-*301			
6.000	-*038	-*049	-*063	-*074	-*130	-*278			

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Table 04 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.45 \times 10^6$

x, in.	Plate								Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9			
$\Delta = 30^\circ$										
-6.000	-002	-004	.002	.193	.349	.318		1	.370	
-5.500	-032	.019	.144	.337	.363	.265		2	.311	
-5.000	.261	.257	.315	.371	.368	.241		3	.293	
-4.500	.317	.328	.353	.381	.349	.232		4	.307	
-4.000	.333	.345	.359	.378	.311	.222	.312	5	.338	
-3.500	.331	.341	.362	.362	.271	.208	.316	6	.388	
-3.000	.331	.341	.355	.327	.233	.201	.318	7	.190	
-2.750	.333	.349	.350	.305	.220	.204	.318	8	.335	
-2.500	.331	.341	.334	.283	.211	.208	.320	9	.336	
-2.250	.328	.330	.316	.260	.200	.218	.321	10	.337	
-2.000	.314	.314	.294	.241	.199	.233	.322	11	.332	
-1.750	.302	.293	.269	.230	.199	.253	.322	12	.407	
-1.500	.280	.269	.242	.215	.206	.275	.322	13	.372	
-1.250	.240	.248	.227	.213	.217	.300	.320	14	.373	
-1.000	.238	.230	.224	.218	.240	.334	.317	15	.391	
-0.750	.228	.225	.230	.233	.272	.377	.313	16	.419	
-0.625	.234	.229	.240	.252	.298	.395	.313	17	.449	
-0.500	.241	.242	.259	.277	.329	.421	.319	18	.388	
-0.375	.268	.266	.290	.316	.374	.440	.337	19	.312	
-0.250	.318	.322	.341	.368	.418	.435	.373	20	.311	
-0.125	.409		.426		.433		.437	21	.310	
0.000	.412	.413	.417	.414	.415	.413	.443	22	.311	
$\Delta = 45^\circ$										
-6.000	.000	-001	-001	.005	.279	.371		1	.359	
-5.500	.012	-002	.001	.158	.341	.290		2	.341	
-5.000	.207	.142	.204	.300	.349	.217		3	.307	
-4.500	.277	.273	.297	.331	.338	.206		4	.299	
-4.000	.295	.300	.318	.335	.298	.212	.273	5	.328	
-3.500	.293	.303	.319	.330	.247	.223	.271	6	.392	
-3.000	.292	.307	.290	.297	.202	.256	.265	7	.174	
-2.750	.294	.308	.309	.267	.186	.283	.266	8	.329	
-2.500	.287	.294	.289	.238	.181	.304	.265	9	.333	
-2.250	.273	.275	.257	.208	.173	.329	.260	10	.337	
-2.000	.245	.245	.226	.184	.172	.354	.248	11	.329	
-1.750	.212	.207	.190	.168	.185	.377	.229	12	.248	
-1.500	.179	.171	.160	.155	.208	.394	.205	13	.201	
-1.250	.133	.147	.145	.168	.239	.404	.177	14	.179	
-1.000	.138	.138	.161	.195	.283	.415	.148	15	.186	
-0.750	.151	.163	.192	.244	.338	.423	.133	16	.227	
-0.625	.177	.197	.226	.278	.359	.418	.130	17	.280	
-0.500	.211	.245	.269	.313	.377	.419	.140	18	.272	
-0.375	.281	.262	.316	.353	.394	.412	.165	19	.299	
-0.250	.335	.338	.361	.381	.400	.397	.214	20	.277	
-0.125	.380		.390		.388		.281	21	.222	
0.000	.375	.375	.379	.377	.379	.376	.245	22	.224	
$\Delta = 45^\circ$										
-6.000	.000	-001	-001	.005	.279	.371		1	.359	
-5.500	.012	-002	.001	.158	.341	.290		2	.341	
-5.000	.207	.142	.204	.300	.349	.217		3	.307	
-4.500	.277	.273	.297	.331	.338	.206		4	.299	
-4.000	.295	.300	.318	.335	.298	.212	.273	5	.328	
-3.500	.293	.303	.319	.330	.247	.223	.271	6	.392	
-3.000	.292	.307	.290	.297	.202	.256	.265	7	.174	
-2.750	.294	.308	.309	.267	.186	.283	.266	8	.329	
-2.500	.287	.294	.289	.238	.181	.304	.265	9	.333	
-2.250	.273	.275	.257	.208	.173	.329	.260	10	.337	
-2.000	.245	.245	.226	.184	.172	.354	.248	11	.329	
-1.750	.212	.207	.190	.168	.185	.377	.229	12	.248	
-1.500	.179	.171	.160	.155	.208	.394	.205	13	.201	
-1.250	.133	.147	.145	.168	.239	.404	.177	14	.179	
-1.000	.138	.138	.161	.195	.283	.415	.148	15	.186	
-0.750	.151	.163	.192	.244	.338	.423	.133	16	.227	
-0.625	.177	.197	.226	.278	.359	.418	.130	17	.280	
-0.500	.211	.245	.269	.313	.377	.419	.140	18	.272	
-0.375	.281	.262	.316	.353	.394	.412	.165	19	.299	
-0.250	.335	.338	.361	.381	.400	.397	.214	20	.277	
-0.125	.380		.390		.388		.281	21	.222	
0.000	.375	.375	.379	.377	.379	.376	.245	22	.224	
$\Delta = 45^\circ$										
-6.000	.000	-001	-001	.005	.279	.371		1	.359	
-5.500	.012	-002	.001	.158	.341	.290		2	.341	
-5.000	.207	.142	.204	.300	.349	.217		3	.307	
-4.500	.277	.273	.297	.331	.338	.206		4	.299	
-4.000	.295	.300	.318	.335	.298	.212	.273	5	.328	
-3.500	.293	.303	.319	.330	.247	.223	.271	6	.392	
-3.000	.292	.307	.290	.297	.202	.256	.265	7	.174	
-2.750	.294	.308	.309	.267	.186	.283	.266	8	.329	
-2.500	.287	.294	.289	.238	.181	.304	.265	9	.333	
-2.250	.273	.275	.257	.208	.173	.329	.260	10	.337	
-2.000	.245	.245	.226	.184	.172	.354	.248	11	.329	
-1.750	.212	.207	.190	.168	.185	.377	.229	12	.248	
-1.500	.179	.171	.160	.155	.208	.394	.205	13	.201	
-1.250	.133	.147	.145	.168	.239	.404	.177	14	.179	
-1.000	.138	.138	.161	.195	.283	.415	.148	15	.186	
-0.750	.151	.163	.192	.244	.338	.423	.133	16	.227	
-0.625	.177	.197	.226	.278	.359	.418	.130	17	.280	
-0.500	.211	.245	.269	.313	.377	.419	.140	18	.272	
-0.375	.281	.262	.316	.353	.394	.412	.165	19	.299	
-0.250	.335	.338	.361	.381	.400	.397	.214	20	.277	
-0.125	.380		.390		.388		.281	21	.222	
0.000	.375	.375	.379	.377	.379	.376	.245	22	.224	

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Table 04 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.45 \times 10^6$

x , in.	Plate								Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9			
$\Delta = 60^\circ$										
-6.000	.002	.003	.004	.004	.010	.283		1	.338	
-5.500	.004	.002	.002	.004	.133	.271		2	.340	
-5.000	.021	.003	.003	.040	.251	.203		3	.341	
-4.500	.128	.078	.101	.203	.268	.159		4	.347	
-4.000	.194	.189	.206	.244	.265	.173	.212	5	.338	
-3.500	.220	.224	.236	.245	.230	.223	.218	6	.320	
-3.000	.228	.233	.210	.245	.160	.319	.221	7	-.089	
-2.750	.225	.236	.241	.233	.138	.363	.217	8	-.305	
-2.500	.228	.236	.242	.208	.145	.388	.218	9	-.310	
-2.250	.232	.235	.226	.163	.155	.403	.215	10	-.314	
-2.000	.213	.217	.198	.138	.190	.398	.207	11	-.338	
-1.750	.189	.181	.151	.144	.244	.395	.192	12	.240	
-1.500	.138	.137	.133	.167	.308	.391	.162	13	.240	
-1.250	.111	.142	.156	.231	.350	.383	.131	14	.247	
-1.000	.168	.191	.229	.305	.364	.380	.131	15	.260	
-.750	.256	.271	.311	.347	.368	.372	.161	16	.274	
-.625	.429	.315	.332	.354	.365	.364	.182	17	.280	
-.500	.432	.317	.346	.354	.356	.361	.204	18	.175	
-.375	.430	.320	.350	.354	.357	.356	.224	19	-.266	
-.250	.431	.341	.345	.350	.355	.352	.240	20	-.244	
-.125	.436		.349		.350		.251	21	-.219	
.000	.347		.350		.349		.247	22	-.224	
.250	-.294	-.289	-.286	-.287			-.262			
.375	-.301	-.294	-.286	-.284	-.279		-.268			
.500	-.300	-.290	-.286	-.282	-.275		-.258			
.750	-.314	-.277	-.274	-.275	-.273	-.274	-.261			
1.000	-.376	-.287	-.265	-.271	-.265	-.267	-.295			
1.250	-.432	-.345	-.316	-.277	-.260	-.258	-.317			
1.500	-.405	-.416	-.343	-.333	-.256	-.246	-.280			
1.750	-.309	-.380	-.399	-.363	-.218	-.222	-.292			
2.000	-.227	-.317	-.388	-.318	-.217	-.195	-.342			
2.250	-.107	-.236	-.365	-.313	-.288	-.170	-.330			
2.500	-.025	-.155	-.294	-.362	-.283	-.162	-.293			
2.750	-.014	-.092	-.226	-.347	-.275	-.188	-.227			
3.000	.021	-.050	-.155	-.316	-.277	-.259	-.136			
3.500	.002	-.017	-.039	-.230	-.293					
4.000	-.011	-.005	.016	-.154	.311					
4.500	-.018	-.002	.033	-.052	.314					
5.000	-.022	-.030	.039	.031	.309					
5.500	-.040	.002	.041	.081	.298					
6.000	-.004	.001	.036	.087	.280					
$\Delta = 75^\circ$										
-6.000	-.002	.001	.004	.003	.007	.121		1	.098	
-5.500	.007	.001	.002	.002	.019	.175		2	.102	
-5.000	.032	.005	.005	.005	.091	.164		3	.102	
-4.500	.065	.043	.037	.070	.136	.134		4	.097	
-4.000	.077	.080	.087	.107	.131	.119	.064	5	.085	
-3.500	.073	.082	.097	.106	.118	.109	.064	6	.065	
-3.000	.065	.079	.089	.097	.103	.104	.064	7	-.187	
-2.750	.068	.083	.086	.093	.095	.103	.065	8	-.162	
-2.500	.070	.076	.085	.087	.086	.102	.066	9	-.174	
-2.250	.073	.076	.082	.087	.078	.101	.064	10	-.213	
-2.000	.068	.078	.084	.081	.077	.101	.055	11	-.268	
-1.750	.078	.091	.083	.079	.082	.102	.065	12	.077	
-1.500	.079	.079	.076	.074	.091	.106	.064	13	.077	
-1.250	.062	.079	.069	.084	.101	.114	.065	14	.079	
-1.000	.048	.071	.086	.094	.107	.114	.063	15	.082	
-.750	.077	.081	.093	.100	.113	.117	.053	16	.079	
-.625	.076	.091	.099	.103	.113	.112	.058	17	.069	
-.500	.084	.095	.102	.104	.111	.113	.062	18	.011	
-.375	.088	.106	.103	.108	.110	.109	.069	19	-.232	
-.250	.102	.095	.104	.106	.110	.106	.076	20	-.169	
-.125	.103		.106		.108		.092	21	-.061	
.000	.102		.104		.108		.077	22	-.077	
.250	-.161	-.150	-.132	-.130			-.226			
.375	-.160	-.144	-.133	-.129	-.113		-.218			
.500	-.173	-.156	-.133	-.122	-.109		-.187			
.750	-.191	-.247	-.217	-.127	-.093	-.078	-.180			
1.000	-.142	-.206	-.271	-.150	-.073	-.056	-.151			
1.250	-.002	-.140	-.231	-.212	-.047	-.035	-.100			
1.500	.029	-.083	-.184	-.242	-.026	-.012	-.056			
1.750	.028	-.011	-.136	-.195	.000	.013	-.007			
2.000	-.110	.009	-.095	-.142	.020	.013	-.034			
2.250	-.102	.012	-.076	-.100	.004	.001	-.063			
2.500	-.081	.014	-.053	-.061	-.016	-.006	-.074			
2.750	-.057	.019	-.048	-.035	-.009	-.044	-.058			
3.000	-.035	.024	-.039	-.004	.018	-.149	.040			
3.500	-.010	.005	-.029	-.041	.011	-.076				
4.000	.012	-.016	-.023	-.032	.034	-.097				
4.500	.024	-.025	-.020	-.037	.015	-.206				
5.000	.016	-.044	-.019	-.041	.017	-.210				
5.500	-.020	-.007	-.015	-.044	.017	-.200				
6.000	.001	-.004	-.012	-.042	.020	-.188				

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Table 05
Plate and Spoiler Pressure Coefficients
Configuration 2 $M = 1.61$ $R = 0.56 \times 10^6$

x , in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6.000	.003	.001	.003	.212	.395	.384			1 .554
-5.500	.005	.004	.007	.346	.403	.377			2 .492
-5.000	.005	.004	.237	.391	.415	.374			3 .476
-4.500	.180	.250	.362	.414	.427	.377			4 .504
-4.000	.355	.368	.402	.421	.434	.382	.336		5 .563
-3.500	.398	.403	.419	.430	.436	.385	.390		6 .462
-3.000	.414	.416	.425	.435	.430	.391	.410		7 .476
-2.750	.419	.427	.430	.437	.425	.393	.415		8 .500
-2.500	.425	.431	.435	.436	.417	.399	.420		9 .460
-2.250	.430	.432	.435	.430	.408	.407	.422		10 .468
-2.000	.425	.434	.433	.424	.402	.416	.426		11 .498
-1.750	.432	.431	.429	.415	.399	.429	.429		12 .578
-1.500	.424	.424	.415	.404	.402	.447	.446		13 .495
-1.250	.395	.413	.402	.398	.409	.471	.399		14 .478
-1.000	.399	.399	.400	.402	.423	.500	.382		15 .521
-0.750	.396	.396	.406	.415	.449	.535	.377		16 .501
-0.625	.402	.403	.415	.432	.472	.598	.386		17 .720
-0.500	.418	.419	.435	.454	.502	.582	.403		18 .777
-0.375	.446	.449	.465	.490	.540	.606	.438		19 .354
-0.250	.496	.500	.518	.543	.590	.616	.506		20 .358
-0.125	.587	.598	.621				.619		21 .359
0.000	.602	.603	.602	.603	.605	.602	.630		22 .356
$\Delta = 15^\circ$									
-6.000	.004	.003	.005	.286	.385	.333			1 .563
-5.500	.004	.004	.081	.355	.392	.319			2 .498
-5.000	.007	.043	.298	.380	.397	.311			3 .479
-4.500	.236	.285	.358	.389	.398	.317			4 .509
-4.000	.348	.354	.376	.388	.394	.328	.357		5 .569
-3.500	.376	.378	.388	.391	.392	.342	.383		6 .671
-3.000	.395	.392	.392	.393	.390	.360	.393		7 .502
-2.750	.401	.399	.397	.395	.390	.366	.396		8 .351
-2.500	.405	.402	.401	.395	.389	.369	.401		9 .249
-2.250	.411	.406	.407	.397	.389	.366	.404		10 .249
-2.000	.410	.411	.408	.398	.388	.366	.406		11 .348
-1.750	.416	.413	.410	.399	.382	.374	.402		12 .514
-1.500	.412	.410	.405	.392	.375	.392	.391		13 .455
-1.250	.381	.398	.389	.376	.376	.421	.378		14 .427
-1.000	.374	.378	.374	.372	.393	.464	.346		15 .460
-0.750	.368	.369	.380	.389	.429	.510	.364		16 .535
-0.625	.380	.381	.393	.411	.457	.548	.371		17 .594
-0.500	.401	.405	.421	.441	.494	.579	.384		18 .439
-0.375	.438	.442	.459	.485	.538	.605	.411		19 .345
-0.250	.498	.503	.519	.546	.596	.619	.465		20 .346
-0.125	.596	.608	.624				.947		21 .346
0.000	.602	.604	.604	.603	.607	.603	.549		22 .346
$\Delta = 30^\circ$									
-6.000	.004	.003	.005	.286	.385	.333			1 .563
-5.500	.004	.004	.081	.355	.392	.319			2 .498
-5.000	.007	.043	.298	.380	.397	.311			3 .479
-4.500	.236	.285	.358	.389	.398	.317			4 .509
-4.000	.348	.354	.376	.388	.394	.328	.357		5 .569
-3.500	.376	.378	.388	.391	.392	.342	.383		6 .671
-3.000	.395	.392	.392	.393	.390	.360	.393		7 .502
-2.750	.401	.399	.397	.395	.390	.366	.396		8 .351
-2.500	.405	.402	.401	.395	.389	.369	.401		9 .249
-2.250	.411	.406	.407	.397	.389	.366	.404		10 .249
-2.000	.410	.411	.408	.398	.388	.366	.406		11 .348
-1.750	.416	.413	.410	.399	.382	.374	.402		12 .514
-1.500	.412	.410	.405	.392	.375	.392	.391		13 .455
-1.250	.381	.398	.389	.376	.376	.421	.378		14 .427
-1.000	.374	.378	.374	.372	.393	.464	.346		15 .460
-0.750	.368	.369	.380	.389	.429	.510	.364		16 .535
-0.625	.380	.381	.393	.411	.457	.548	.371		17 .594
-0.500	.401	.405	.421	.441	.494	.579	.384		18 .439
-0.375	.438	.442	.459	.485	.538	.605	.411		19 .345
-0.250	.498	.503	.519	.546	.596	.619	.465		20 .346
-0.125	.596	.608	.624				.947		21 .346
0.000	.602	.604	.604	.603	.607	.603	.549		22 .346
$\Delta = 45^\circ$									
-6.000	.004	.003	.005	.286	.385	.333			1 .563
-5.500	.004	.004	.081	.355	.392	.319			2 .498
-5.000	.007	.043	.298	.380	.397	.311			3 .479
-4.500	.236	.285	.358	.389	.398	.317			4 .509
-4.000	.348	.354	.376	.388	.394	.328	.357		5 .569
-3.500	.376	.378	.388	.391	.392	.342	.383		6 .671
-3.000	.395	.392	.392	.393	.390	.360	.393		7 .502
-2.750	.401	.399	.397	.395	.390	.366	.396		8 .351
-2.500	.405	.402	.401	.395	.389	.366	.401		9 .249
-2.250	.411	.406	.407	.397	.389	.366	.404		10 .249
-2.000	.410	.411	.408	.398	.388	.366	.406		11 .348
-1.750	.416	.413	.410	.399	.382	.374	.402		12 .514
-1.500	.412	.410	.405	.392	.375	.392	.391		13 .455
-1.250	.381	.398	.389	.376	.376	.421	.378		14 .427
-1.000	.374	.378	.374	.372	.393	.464	.346		15 .460
-0.750	.368	.369	.380	.389	.429	.510	.364		16 .535
-0.625	.380	.381	.393	.411	.457	.548	.371		17 .594
-0.500	.401	.405	.421	.441	.494	.579	.384		18 .439
-0.375	.438	.442	.459	.485	.538	.605	.411		19 .345
-0.250	.498	.503	.519	.546	.596	.619	.465		20 .346
-0.125	.596	.608	.624				.947		21 .346
0.000	.602	.604	.604	.603	.607	.603	.549		22 .346

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Table 05 Continued
 Plate and Spoiler Pressure Coefficients

x, in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	Spoiler
$\Delta = 30^\circ$									
-6.000	.005	.001	.006	.130	.351	.337		1	.382
-5.500	.021	.010	.094	.329	.374	.281		2	.320
-5.000	.248	.242	.310	.371	.381	.253		3	.298
-4.500	.321	.330	.358	.385	.366	.241		4	.314
-4.000	.339	.354	.365	.382	.330	.233	.318	5	.345
-3.500	.341	.353	.369	.368	.286	.219	.321	6	.397
-3.000	.339	.352	.363	.337	.248	.213	.325	7	.214
-2.750	.340	.353	.355	.314	.231	.214	.325	8	.329
-2.500	.339	.346	.342	.292	.222	.218	.327	9	.327
-2.250	.335	.335	.320	.269	.209	.227	.329	10	.270
-2.000	.320	.317	.299	.249	.203	.240	.330	11	.326
-1.750	.308	.295	.272	.232	.203	.261	.330	12	.414
-1.500	.285	.271	.247	.220	.210	.282	.328	13	.379
-1.250	.244	.250	.232	.215	.221	.311	.327	14	.377
-1.000	.228	.232	.227	.219	.241	.346	.322	15	.396
-0.750	.230	.225	.228	.236	.279	.386	.317	16	.421
-0.625	.233	.231	.237	.253	.305	.406	.318	17	.452
-0.500	.244	.252	.259	.282	.337	.430	.325	18	.386
-0.375	.269	.273	.291	.322	.384	.448	.342	19	.305
-0.250	.323	.327	.347	.374	.427	.442	.378	20	.304
-0.125	.416		.432		.440		.440	21	.300
.000	.413		.415		.419		.446	22	.301
$\Delta = 30^\circ$									
.250	-332	-330	-324	-319					-303
.375	-334	-335	-327	-323	-315				-305
.500	-337	-338	-329	-326	-319				-306
.750	-345	-344	-334	-330	-319				-303
1.000	-343	-326	-332	-332	-319	-313			-303
1.250	-307	-305	-316	-321	-320	-314			-300
1.500	-277	-275	-290	-311	-321	-314			-290
2.000	-231	-243	-264	-298	-319	-312			-275
2.250	-210	-215	-234	-283	-314	-309			-254
2.500	-182	-195	-216	-265	-308	-307			-230
2.750	-151	-165	-187	-250	-301	-305			-208
3.000	-127	-146	-172	-233	-293	-304			-186
3.500	-110	-128	-153	-216	-285	-307			-166
4.000	-082	-102	-124	-188	-267	-299			
4.500	-061	-075	-107	-163	-249	-295			
5.000	-054	-054	-090	-142	-231	-289			
5.500	-048	-063	-077	-125	-212	-282			
6.000	-057	-030	-062	-111	-195	-275			
	-025	-027	-050	-099	-177	-262			
$\Delta = 45^\circ$									
-6.000	.003	.003	.004	.008	.287	.398		1	.360
-5.500	.012	.004	.007	.156	.355	.320		2	.342
-5.000	.210	.142	.204	.309	.364	.243		3	.305
-4.500	.283	.281	.306	.341	.354	.218		4	.296
-4.000	.305	.309	.328	.345	.316	.219	.285	5	.326
-3.500	.300	.311	.330	.339	.260	.227	.282	6	.390
-3.000	.302	.314	.325	.304	.214	.256	.279	7	.200
-2.750	.302	.316	.317	.276	.197	.282	.278	8	.320
-2.500	.295	.302	.298	.246	.191	.304	.277	9	.325
-2.250	.278	.280	.266	.215	.178	.328	.269	10	.272
-2.000	.249	.251	.233	.188	.175	.353	.256	11	.324
-1.750	.219	.216	.197	.171	.186	.376	.240	12	.257
-1.500	.186	.179	.166	.160	.208	.392	.216	13	.211
-1.250	.137	.155	.155	.167	.238	.407	.186	14	.188
-1.000	.141	.144	.162	.192	.281	.420	.160	15	.199
-0.750	.153	.165	.189	.242	.338	.432	.142	16	.238
-0.625	.179	.196	.222	.275	.361	.427	.142	17	.292
-0.500	.215	.235	.266	.315	.384	.429	.150	18	.280
-0.375	.278	.289	.316	.354	.405	.422	.174	19	.290
-0.250	.337	.344	.361	.385	.412	.404	.223	20	.246
-0.125	.386		.394		.394		.292	21	.225
.000	.366	.371	.371	.371	.376	.373	.275	22	.227
$\Delta = 45^\circ$									
.250	-318	-315	-306	-307					-281
.375	-316	-314	-306	-304	-297				-294
.500	-319	-311	-304	-302	-293				-292
.750	-355	-296	-282	-292	-285	-284			-273
1.000	-388	-326	-231	-276	-280	-262			-277
1.250	-331	-317	-182	-262	-291	-229			-291
1.500	-321	-268	-195	-267	-319	-209			-292
1.750	-288	-254	-208	-280	-340	-194			-282
2.000	-292	-245	-204	-285	-320	-173			-261
2.250	-307	-229	-206	-280	-259	-167			-238
2.500	-288	-205	-260	-267	-225	-191			-219
2.750	-302	-156	-212	-248	-229	-237			-196
3.000	-322	-186	-212	-221	-253	-294			-176
3.500	-152	-126	-190	-173	-272	-239			
4.000	.003	-109	-161	-157	-250	-258			
4.500	.035	.010	-129	-148	-221	-278			
5.000	.037	.057	-098	-129	-218	-254			
5.500	.030	.079	-066	-107	-193	-263			
6.000	.026	.069	-025	-095	-179	-244			

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Table 05 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 1.61$ $R = 0.56 \times 10^6$

x , in.	Plate							Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = 60^\circ$								
-6.000	.006	.003	.003	.007	.014	.282		1 .327
-5.500	.001	.003	.004	.006	.103	.271		2 .331
-5.000	.014	.002	.000	.025	.244	.210		3 .333
-4.500	.115	.056	.074	.188	.267	.164		4 .336
-4.000	.189	.176	.194	.235	.266	.177	.209	5 .327
-3.500	.213	.215	.230	.244	.237	.227	.216	6 .306
-3.000	.221	.227	.233	.245	.170	.319	.220	7 -.110
-2.750	.226	.233	.236	.232	.145	.358	.217	8 .295
-2.500	.228	.230	.235	.211	.150	.383	.218	9 .301
-2.250	.230	.233	.223	.170	.158	.394	.217	10 .278
-2.000	.212	.216	.194	.142	.191	.388	.209	11 -.331
-1.750	.190	.184	.149	.145	.246	.386	.197	12 .241
-1.500	.143	.138	.134	.167	.309	.381	.170	13 .241
-1.250	.117	.140	.158	.228	.345	.374	.140	14 .248
-1.000	.166	.187	.225	.302	.358	.372	.135	15 .260
-.750	.253	.265	.308	.341	.362	.361	.165	16 .271
-.625	.290	.305	.326	.345	.357	.355	.188	17 .275
-.500	.314	.323	.336	.343	.350	.351	.208	18 .161
-.375	.321	.336	.338	.341	.349	.346	.227	19 .244
-.250	.328	.327	.334	.337	.345	.342	.241	20 .244
-.125	.332	.337	.337	.339	.339	.339	.250	21 .221
.000	.325	.326	.326	.328	.332	.328	.246	22 .226
$\Delta = 75^\circ$								
-6.000	.007	.005	.008	.012	.015	.126		1 .105
-5.500	.015	.004	.007	.011	.024	.187		2 .109
-5.000	.039	.010	.008	.012	.097	.172		3 .110
-4.500	.075	.044	.039	.074	.144	.141		4 .104
-4.000	.083	.087	.092	.116	.140	.128	.071	5 .050
-3.500	.081	.091	.104	.115	.126	.120	.072	6 .073
-3.000	.078	.086	.097	.105	.110	.115	.073	7 -.179
-2.750	.076	.089	.094	.101	.101	.113	.074	8 .158
-2.500	.078	.084	.091	.097	.094	.111	.074	9 .166
-2.250	.081	.083	.088	.093	.086	.110	.073	10 .209
-2.000	.077	.083	.089	.091	.086	.108	.074	11 .262
-1.750	.086	.086	.087	.087	.091	.111	.073	12 .083
-1.500	.087	.088	.082	.085	.101	.115	.075	13 .083
-1.250	.072	.086	.077	.093	.110	.122	.075	14 .087
-1.000	.076	.081	.095	.103	.116	.124	.072	15 .091
-.750	.086	.089	.101	.108	.123	.126	.063	16 .087
-.625	.085	.096	.106	.111	.122	.122	.067	17 .076
-.500	.093	.098	.109	.112	.119	.122	.071	18 .018
-.375	.096	.112	.110	.116	.121	.119	.079	19 .226
-.250	.108	.102	.112	.114	.119	.116	.086	20 .163
-.125	.110	.116	.116	.115	.115	.115	.091	21 .053
.000	.106	.109	.114	.112	.116	.113	.087	22 .071
$\Delta = 75^\circ$								
-6.000	.007	.005	.008	.012	.015	.126		1 .105
-5.500	.015	.004	.007	.011	.024	.187		2 .109
-5.000	.039	.010	.008	.012	.097	.172		3 .110
-4.500	.075	.044	.039	.074	.144	.141		4 .104
-4.000	.083	.087	.092	.116	.140	.128	.071	5 .050
-3.500	.081	.091	.104	.115	.126	.120	.072	6 .073
-3.000	.078	.086	.097	.105	.110	.115	.073	7 .158
-2.750	.076	.089	.094	.101	.101	.113	.074	8 .158
-2.500	.078	.084	.091	.097	.094	.111	.074	9 .166
-2.250	.081	.083	.088	.093	.086	.110	.073	10 .209
-2.000	.077	.083	.089	.091	.086	.108	.074	11 .262
-1.750	.086	.086	.087	.087	.091	.111	.073	12 .083
-1.500	.087	.088	.082	.085	.101	.115	.075	13 .083
-1.250	.072	.086	.077	.093	.110	.122	.075	14 .087
-1.000	.076	.081	.095	.103	.116	.124	.072	15 .091
-.750	.086	.089	.101	.108	.123	.126	.063	16 .087
-.625	.085	.096	.106	.111	.122	.122	.067	17 .076
-.500	.093	.098	.109	.112	.119	.122	.071	18 .018
-.375	.096	.112	.110	.116	.121	.119	.079	19 .226
-.250	.108	.102	.112	.114	.119	.116	.086	20 .163
-.125	.110	.116	.116	.115	.115	.115	.091	21 .053
.000	.106	.109	.114	.112	.116	.113	.087	22 .071
$\Delta = 75^\circ$								
-6.000	.007	.005	.008	.012	.015	.126		1 .105
-5.500	.015	.004	.007	.011	.024	.187		2 .109
-5.000	.039	.010	.008	.012	.097	.172		3 .110
-4.500	.075	.044	.039	.074	.144	.141		4 .104
-4.000	.083	.087	.092	.116	.140	.128	.071	5 .050
-3.500	.081	.091	.104	.115	.126	.120	.072	6 .073
-3.000	.078	.086	.097	.105	.110	.115	.073	7 -.179
-2.750	.076	.089	.094	.101	.101	.113	.074	8 .158
-2.500	.078	.084	.091	.097	.094	.111	.074	9 .166
-2.250	.081	.083	.088	.093	.086	.110	.073	10 .209
-2.000	.077	.083	.089	.091	.086	.108	.074	11 .262
-1.750	.086	.086	.087	.087	.091	.111	.073	12 .083
-1.500	.087	.088	.082	.085	.101	.115	.075	13 .083
-1.250	.072	.086	.077	.093	.110	.122	.075	14 .087
-1.000	.076	.081	.095	.103	.116	.124	.072	15 .091
-.750	.086	.089	.101	.108	.123	.126	.063	16 .087
-.625	.085	.096	.106	.111	.122	.122	.067	17 .076
-.500	.093	.098	.109	.112	.119	.122	.071	18 .018
-.375	.096	.112	.110	.116	.121	.119	.079	19 .226
-.250	.108	.102	.112	.114	.119	.116	.086	20 .163
-.125	.110	.116	.116	.115	.115	.115	.091	21 .053
.000	.106	.109	.114	.112	.116	.113	.087	22 .071

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Table 06
Plate and Spoiler Pressure Coefficients
Configuration 3 M = 1.61 R = 0.30 × 10⁶

x, in.	Plate							Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = 00^\circ$								
-6.000	.005	.004	.012	.007	.174	.375		1 .498
-5.500	.005	.004	.011	.007	.317	.394		2 .460
-5.000	.005	.004	.011	.004	.363	.403		3 .453
-4.500	.005	.001	.011	.144	.385	.404		4 .469
-4.000	.003	.004	.017	.315	.397	.402	.008	5 .505
-3.500	.010	.055	.282	.366	.406	.400	.010	6 .552
-3.000	.287	.311	.361	.385	.409	.394	.256	7 .612
-2.750	.327	.356	.373	.390	.412	.393	.327	8 .336
-2.500	.362	.347	.383	.395	.411	.390	.362	9 .338
-2.250	.382	.383	.389	.401	.412	.387	.380	10 .337
-2.000	.386	.392	.397	.403	.412	.389	.391	11 .335
-1.750	.402	.399	.404	.411	.406	.392	.399	12 .500
-1.500	.403	.403	.403	.407	.400	.396	.406	13 .454
-1.250	.383	.408	.402	.398	.393	.404	.408	14 .443
-1.000	.402	.401	.398	.390	.393	.417	.403	15 .467
-750	.392	.388	.384	.385	.398	.440	.389	16 .502
-625	.382	.382	.382	.387	.407	.454	.381	17 .570
-500	.387	.376	.385	.396	.425	.475	.378	18 .632
-375	.397	.400	.401	.413	.431	.508	.389	19 .334
-250	.418	.423	.422	.451	.489	.537	.415	20 .337
-125	.481		.488		.537		.485	21 .337
.000	.525	.526	.519	.524	.527	.528	.535	22 .336
$\Delta = 15^\circ$								
-6.000	.005	.004	.011	.004	.208	.436		1 .454
-5.500	.003	.004	.010	.004	.320	.355		2 .419
-5.000	.005	.002	.009	.000	.353	.375		3 .408
-4.500	.001	.001	.011	.127	.365	.376		4 .418
-4.000	.003	.002	.013	.296	.375	.370	.008	5 .445
-3.500	.039	.075	.269	.346	.383	.381	.069	6 .478
-3.000	.298	.311	.350	.370	.392	.381	.306	7 .522
-2.750	.335	.354	.363	.376	.396	.363	.334	8 .339
-2.500	.353	.360	.374	.382	.402	.351	.353	9 .339
-2.250	.371	.374	.376	.385	.401	.347	.361	10 .340
-2.000	.366	.378	.378	.387	.393	.349	.369	11 .341
-1.750	.378	.381	.387	.392	.381	.358	.375	12 .448
-1.500	.379	.385	.380	.386	.368	.364	.381	13 .416
-1.250	.372	.381	.377	.370	.358	.376	.383	14 .407
-1.000	.376	.376	.370	.357	.357	.390	.381	15 .426
-750	.365	.362	.354	.349	.366	.415	.369	16 .448
-625	.360	.359	.351	.352	.378	.431	.366	17 .491
-500	.363	.352	.357	.362	.391	.448	.365	18 .525
-375	.364	.366	.366	.381	.390	.471	.371	19 .325
-250	.386	.386	.389	.411	.448	.488	.389	20 .329
-125	.442		.446		.486		.436	21 .328
.000	.466	.469	.461	.464	.475	.474	.472	22 .319
$\Delta = 15^\circ$								
-6.000	.005	.004	.010	.004	.208	.436		1 .454
-5.500	.003	.004	.010	.004	.320	.355		2 .419
-5.000	.005	.002	.009	.000	.353	.375		3 .408
-4.500	.001	.001	.011	.127	.365	.376		4 .418
-4.000	.003	.002	.013	.296	.375	.370	.008	5 .445
-3.500	.039	.075	.269	.346	.383	.381	.069	6 .478
-3.000	.298	.311	.350	.370	.392	.381	.306	7 .522
-2.750	.335	.354	.363	.376	.396	.363	.334	8 .339
-2.500	.353	.360	.374	.382	.402	.351	.353	9 .339
-2.250	.371	.374	.376	.385	.401	.347	.361	10 .340
-2.000	.366	.378	.378	.387	.393	.349	.369	11 .341
-1.750	.378	.381	.387	.392	.381	.358	.375	12 .448
-1.500	.379	.385	.380	.386	.368	.364	.381	13 .416
-1.250	.372	.381	.377	.370	.358	.376	.383	14 .407
-1.000	.376	.376	.370	.357	.357	.390	.381	15 .426
-750	.365	.362	.354	.349	.366	.415	.369	16 .448
-625	.360	.359	.351	.352	.378	.431	.366	17 .491
-500	.363	.352	.357	.362	.391	.448	.365	18 .525
-375	.364	.366	.366	.381	.390	.471	.371	19 .325
-250	.386	.386	.389	.411	.448	.488	.389	20 .329
-125	.442		.446		.486		.436	21 .328
.000	.466	.469	.461	.464	.475	.474	.472	22 .319

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Table 06 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 3 $M = 1.61$ $R = 0.30 \times 10^6$

x , in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.
$\Delta = 30^\circ$								
-6.000	.007	-.003	.006	.001	.105	.345		1 .386
-5.500	.006	-.003	.004	.001	.319	.324		2 .358
-5.000	.007	-.002	.005	.056	.359	.271		3 .359
-4.500	.006	-.003	.016	.281	.355	.240		4 .369
-4.000	.035	.065	.236	.319	.350	.220	.047	5 .390
-3.500	.236	.252	.304	.320	.340	.214	.243	6 .402
-3.000	.290	.220	.314	.313	.320	.219	.300	7 .412
-2.750	.299	.307	.309	.309	.313	.222	.311	8 .309
-2.500	.302	.300	.303	.308	.303	.229	.322	9 .322
-2.250	.311	.300	.299	.301	.296	.234	.332	10 .333
-2.000	.300	.298	.299	.299	.289	.240	.337	11 .317
-1.750	.313	.300	.298	.298	.287	.250	.341	12 .403
-1.500	.310	.298	.291	.294	.285	.259	.345	13 .381
-1.250	.308	.302	.293	.290	.286	.275	.348	14 .378
-1.000	.313	.305	.299	.291	.292	.294	.350	15 .388
-0.750	.310	.303	.298	.294	.297	.320	.346	16 .400
-0.625	.311	.303	.298	.291	.305	.336	.340	17 .429
-0.500	.310	.290	.300	.296	.317	.355	.336	18 .426
-0.375	.306	.303	.304	.305	.317	.383	.343	19 .302
-0.250	.320	.315	.319	.335	.370	.410	.358	20 .301
-0.125	.375		.379		.417		.395	21 .299
.000	.413		.408		.407		.417	22 .299
$\Delta = 45^\circ$								
-6.000	.011	.004	.012	.006	.021	.323		1 .203
-5.500	.008	.005	.010	.005	.173	.324		2 .162
-5.000	.011	.002	.010	.010	.306	.270		3 .143
-4.500	.012	.002	.024	.219	.323	.212		4 .142
-4.000	.147	.135	.216	.280	.321	.179	.195	5 .169
-3.500	.234	.237	.275	.289	.309	.151	.224	6 .201
-3.000	.257	.259	.280	.280	.269	.132	.230	7 .245
-2.750	.258	.272	.268	.278	.239	.128	.244	8 .258
-2.500	.254	.259	.265	.270	.232	.121	.245	9 .297
-2.250	.253	.255	.259	.252	.179	.116	.245	10 .311
-2.000	.242	.253	.254	.228	.151	.117	.242	11 .299
-1.750	.250	.248	.236	.200	.133	.120	.240	12 .280
-1.500	.234	.230	.207	.169	.116	.129	.240	13 .254
-1.250	.192	.202	.176	.134	.111	.138	.245	14 .253
-1.000	.173	.165	.138	.107	.110	.158	.250	15 .267
-0.750	.130	.118	.101	.093	.110	.182	.249	16 .276
-0.625	.110	.103	.093	.093	.129	.194	.247	17 .291
-0.500	.097	.079	.095	.101	.144	.214	.236	18 .267
-0.375	.097	.097	.106	.120	.114	.238	.228	19 .245
-0.250	.121	.124	.131	.163	.212	.254	.234	20 .264
-0.125	.198		.210		.248		.273	21 .268
.000	.236	.238	.234	.232	.240	.239	.297	22 .279
$\Delta = 45^\circ$								
-6.000	.011	.004	.012	.006	.021	.323		1 .203
-5.500	.008	.005	.010	.005	.173	.324		2 .162
-5.000	.011	.002	.010	.010	.306	.270		3 .143
-4.500	.012	.002	.024	.219	.323	.212		4 .142
-4.000	.147	.135	.216	.280	.321	.179	.195	5 .169
-3.500	.234	.237	.275	.289	.309	.151	.224	6 .201
-3.000	.257	.259	.280	.280	.269	.132	.230	7 .245
-2.750	.258	.272	.268	.278	.239	.128	.244	8 .258
-2.500	.254	.259	.265	.270	.232	.121	.245	9 .297
-2.250	.253	.255	.259	.252	.179	.116	.245	10 .311
-2.000	.242	.253	.254	.228	.151	.117	.242	11 .299
-1.750	.250	.248	.236	.200	.133	.120	.240	12 .280
-1.500	.234	.230	.207	.169	.116	.129	.240	13 .254
-1.250	.192	.202	.176	.134	.111	.138	.245	14 .253
-1.000	.173	.165	.138	.107	.110	.158	.250	15 .267
-0.750	.130	.118	.101	.093	.110	.182	.249	16 .276
-0.625	.110	.103	.093	.093	.129	.194	.247	17 .291
-0.500	.097	.079	.095	.101	.144	.214	.236	18 .267
-0.375	.097	.097	.106	.120	.114	.238	.228	19 .245
-0.250	.121	.124	.131	.163	.212	.254	.234	20 .264
-0.125	.198		.210		.248		.273	21 .268
.000	.236	.238	.234	.232	.240	.239	.297	22 .279

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Table 06 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 3 $M = 1.61$ $R = 0.30 \times 10^6$

X, in.	Plate							Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$A = 60^\circ$									
-6.000	.006	.003	.013	.005	.018	.206		1	.185
-5.500	.006	.003	.011	.005	.021	.265		2	.185
-5.000	.005	.002	.012	.005	.104	.253		3	.183
-4.500	.011	.003	.012	.036	.209	.221		4	.191
-4.000	.074	.041	.069	.147	.233	.159	.149	5	.204
-3.500	.144	.133	.167	.199	.234	.130	.162	6	.213
-3.000	.178	.180	.204	.210	.228	.139	.148	7	.205
-2.750	.189	.201	.207	.214	.219	.148	.168	8	.237
-2.500	.189	.198	.208	.209	.204	.160	.168	9	.244
-2.250	.201	.203	.207	.212	.165	.176	.161	10	.261
-2.000	.186	.199	.208	.199	.132	.193	.156	11	.283
-1.750	.195	.199	.205	.189	.120	.212	.151	12	.068
-1.500	.191	.192	.186	.147	.124	.223	.143	13	.057
-1.250	.145	.176	.159	.111	.137	.229	.139	14	.047
-1.000	.141	.132	.112	.107	.163	.234	.127	15	.046
-.750	.094	.097	.101	.131	.193	.233	.116	16	.053
-.625	.097	.101	.115	.147	.206	.232	.110	17	.070
-.500	.115	.087	.142	.164	.210	.227	.097	18	.067
-.375	.136	.147	.162	.178	.190	.227	.076	19	.200
-.250	.165	.170	.173	.197	.213	.217	.063	20	.206
-.125	.185		.193		.205		.072	21	.187
.000	.199	.201	.200	.199	.206	.204	.077	22	.189
$A = 75^\circ$									
-6.000	.011	.002	.011	.001	.013	.061		1	.060
-5.500	.011	.002	.012	.001	.017	.130		2	.043
-5.000	.017	.002	.011	-.001	.046	.127		3	.064
-4.500	.040	.013	.010	.027	.094	.112		4	.067
-4.000	.055	.049	.058	.068	.101	.100	.049	5	.066
-3.500	.055	.060	.077	.076	.091	.090	.046	6	.054
-3.000	.053	.057	.077	.070	.083	.076	.043	7	.021
-2.750	.053	.071	.069	.066	.080	.071	.042	8	.122
-2.500	.053	.058	.065	.065	.081	.066	.042	9	.140
-2.250	.060	.060	.065	.065	.078	.065	.042	10	.149
-2.000	.046	.060	.067	.066	.074	.065	.042	11	.259
-1.750	.060	.060	.067	.067	.075	.070	.042	12	.046
-1.500	.054	.057	.060	.068	.069	.067	.046	13	.046
-1.250	.042	.060	.061	.064	.058	.064	.050	14	.047
-1.000	.059	.065	.062	.055	.054	.067	.056	15	.055
-.750	.059	.061	.052	.045	.064	.073	.058	16	.065
-.625	.054	.054	.052	.052	.070	.078	.058	17	.077
-.500	.048	.027	.056	.062	.074	.083	.056	18	.076
-.375	.047	.056	.057	.065	.067	.090	.054	19	.175
-.250	.055	.058	.060	.076	.081	.082	.049	20	.176
-.125	.066		.070		.076		.054	21	.195
.000	.083	.084	.081	.080	.088	.082	.054	22	.020
$A = 75^\circ$									
-6.000	.011	.002	.011	.001	.013	.061		1	.060
-5.500	.011	.002	.012	.001	.017	.130		2	.043
-5.000	.017	.002	.011	-.001	.046	.127		3	.064
-4.500	.040	.013	.010	.027	.094	.112		4	.067
-4.000	.055	.049	.058	.068	.101	.100	.049	5	.066
-3.500	.055	.060	.077	.076	.091	.090	.046	6	.054
-3.000	.053	.057	.077	.070	.083	.076	.043	7	.021
-2.750	.053	.071	.069	.066	.080	.071	.042	8	.122
-2.500	.053	.058	.065	.065	.081	.066	.042	9	.140
-2.250	.060	.060	.065	.065	.078	.065	.042	10	.149
-2.000	.046	.060	.067	.066	.074	.065	.042	11	.259
-1.750	.060	.060	.067	.067	.075	.070	.042	12	.046
-1.500	.054	.057	.060	.068	.069	.067	.046	13	.046
-1.250	.042	.060	.061	.064	.058	.064	.050	14	.047
-1.000	.059	.065	.062	.055	.054	.067	.056	15	.055
-.750	.059	.061	.052	.045	.064	.073	.058	16	.065
-.625	.054	.054	.052	.052	.070	.078	.058	17	.077
-.500	.048	.027	.056	.062	.074	.083	.056	18	.076
-.375	.047	.056	.057	.065	.067	.090	.054	19	.175
-.250	.055	.058	.060	.076	.081	.082	.049	20	.176
-.125	.066		.070		.076		.054	21	.195
.000	.083	.084	.081	.080	.088	.082	.054	22	.020

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Table 07
Plate and Spoiler Pressure Coefficients
Configuration 4 $M = 1.61$ $R = 0.30 \times 10^6$

x , in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6.000	.002	.002	.013	.004	.028	.368			1 .428
-5.500	.003	.001	.012	.003	.043	.388			2 .452
-5.000	.004	.000	.014	.000	.252	.399			3 .490
-4.500	.002	-002	.014	.004	.339	.406			4 .532
-4.000	.001	.000	.014	.061	.376	.411	.006		5 .578
-3.500	.000	.000	.019	.292	.394	.410	.006		6 .599
-3.000	.014	.074	.278	.353	.404	.410	.006		7 .481
-2.750	.197	.253	.328	.368	.408	.410	.091		8 .330
-2.500	.296	.319	.356	.379	.412	.410	.267		9 .331
-2.250	.346	.354	.373	.388	.412	.410	.329		10 .334
-2.000	.359	.372	.386	.393	.412	.410	.360		11 .338
-1.750	.385	.387	.395	.400	.416	.408	.378		12 .421
-1.500	.390	.394	.395	.402	.417	.408	.389		13 .443
-1.250	.370	.401	.401	.403	.416	.408	.397		14 .489
-1.000	.402	.405	.404	.403	.415	.408	.402		15 .544
-750	.405	.407	.400	.403	.411	.409	.405		16 .599
-625	.404	.406	.398	.399	.411	.409	.402		17 .625
-500	.401	.393	.397	.400	.411	.416	.397		18 .507
-375	.398	.401	.397	.400	.415	.420	.397		19 .329
-250	.401	.403	.399	.408	.425	.432	.399		20 .330
-125	.413	.412			.441		.406		21 .330
+000	.447	.449	.444	.445	.462	.454	.447		22 .334
$\Delta = 15^\circ$									
-6.000	.002	.003	.011	.001	.015	.351			1 .388
-5.500	.002	.002	.011	.000	.015	.386			2 .407
-5.000	.002	.003	.011	-002	.102	.389			3 .439
-4.500	.003	.001	.011	.004	.292	.389			4 .478
-4.000	.003	.005	.011	.011	.348	.392	.006		5 .519
-3.500	.001	.003	.013	.256	.372	.395	.008		6 .533
-3.000	.045	.079	.252	.327	.391	.394	.107		7 .418
-2.750	.232	.243	.321	.318	.328	.327	.295		8 .347
-2.500	.222	.222	.321	.318	.328	.327	.295		9 .347
-2.250	.257	.243	.267	.311	.329	.327	.256		10 .347
-2.000	.209	.196	.243	.291	.327	.327	.211		11 .351
-2.250	.172	.152	.206	.265	.327	.329	.175		12 .388
-2.750	.138	.119	.178	.228	.323	.329	.137		13 .404
-3.000	.113	.094	.151	.194	.315	.329	.111		14 .430
-3.500	.074	.066	.100	.166	.284	.331			15 .466
-4.000	.049	.047	.074	.106	.243	.331			16 .501
-4.500	.040	.035	.056	.076	.196	.336			17 .511
-5.000	.033	.031	.044	.052	.141	.336			18 .397
-5.500	.039	.029	.035	.033	.098	.329			19 .330
-6.000	.032	.018	.027	.019	.079	.290			20 .331

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Table 07 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 4 $M = 1.61$ $R = 0.30 \times 10^6$

x , in.	Plate							Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 30^\circ$									
-6.000	.005	.003	.009	.000	.020	.310		1	.316
-5.500	.004	.003	.009	-.001	.020	.367		2	.334
-5.000	.005	.001	.008	-.005	.102	.382		3	.355
-4.500	.005	.000	.010	-.001	.313	.381		4	.382
-4.000	.005	.003	.010	.148	.353	.365	.008	5	.402
-3.500	.019	.021	.159	.294	.362	.337	.072	6	.401
-3.000	.230	.243	.300	.322	.352	.312	.253	7	.290
-2.750	.276	.291	.311	.324	.343	.303	.284	8	.323
-2.500	.294	.302	.319	.321	.336	.295	.304	9	.323
-2.250	.312	.313	.321	.313	.329	.289	.312	10	.327
-2.000	.305	.315	.321	.312	.323	.284	.317	11	.329
-1.750	.320	.316	.317	.309	.317	.284	.321	12	.358
-1.500	.314	.314	.311	.307	.310	.285	.329	13	.367
-1.250	.296	.311	.306	.301	.304	.288	.329	14	.382
-1.000	.313	.309	.297	.298	.301	.292	.335	15	.406
-750	.308	.305	.288	.294	.299	.295	.337	16	.424
-625	.306	.305	.291	.294	.303	.301	.338	17	.410
-500	.303	.280	.289	.292	.305	.306	.338	18	.295
-375	.301	.300	.289	.296	.308	.314	.339	19	.300
-250	.302	.300	.289	.302	.318	.319	.340	20	.304
-125	.310	.298			.326		.345	21	.304
.000	.342	.342	.332	.337	.349	.345	.363	22	.305
$\Delta = 45^\circ$									
-6.000	.006	.003	.011	.004	.020	.041		1	.225
-5.500	.005	.003	.011	.001	.020	.277		2	.243
-5.000	.007	.001	.010	-.004	.019	.334		3	.293
-4.500	.005	.002	.011	.004	.182	.344		4	.355
-4.000	.006	.005	.011	.060	.299	.340	.143	5	.413
-3.500	.133	.084	.154	.254	.326	.299	.227	6	.432
-3.000	.247	.248	.277	.298	.327	.249	.253	7	.308
-2.750	.270	.279	.287	.303	.329	.225	.260	8	.317
-2.500	.279	.284	.298	.303	.321	.212	.264	9	.322
-2.250	.288	.292	.299	.303	.297	.202	.260	10	.317
-2.000	.278	.291	.301	.304	.276	.190	.256	11	.303
-1.750	.288	.293	.303	.297	.251	.189	.250	12	.207
-1.500	.285	.293	.288	.268	.223	.186	.248	13	.217
-1.250	.248	.277	.265	.236	.203	.188	.245	14	.240
-1.000	.243	.244	.223	.197	.189	.199	.240	15	.265
-750	.199	.198	.177	.176	.186	.211	.228	16	.280
-625	.165	.179	.170	.170	.187	.223	.220	17	.267
-500	.170	.144	.162	.171	.193	.231	.213	18	.165
-375	.161	.167	.163	.175	.205	.252	.203	19	.304
-250	.170	.171	.168	.195	.229	.270	.198	20	.321
-125	.213	.213	.213	.213	.267		.204	21	.319
.000	.300	.300	.294	.299	.306	.304	.231	22	.311
$\Delta = 45^\circ$									
-6.000	.006	.003	.011	.004	.020	.041		1	.225
-5.500	.005	.003	.011	.001	.020	.277		2	.243
-5.000	.007	.001	.010	-.004	.019	.334		3	.293
-4.500	.005	.002	.011	.004	.182	.344		4	.355
-4.000	.006	.005	.011	.060	.299	.340		5	.413
-3.500	.133	.084	.154	.254	.326	.299		6	.432
-3.000	.247	.248	.277	.298	.327	.249		7	.308
-2.750	.270	.279	.287	.303	.329	.225		8	.317
-2.500	.279	.284	.298	.303	.321	.212		9	.322
-2.250	.288	.292	.299	.303	.297	.202		10	.317
-2.000	.278	.291	.301	.304	.276	.190		11	.303
-1.750	.288	.293	.303	.297	.251	.189		12	.207
-1.500	.285	.293	.288	.268	.223	.186		13	.217
-1.250	.248	.277	.265	.236	.203	.188		14	.240
-1.000	.243	.244	.223	.197	.189	.199		15	.265
-750	.199	.198	.177	.176	.186	.211		16	.280
-625	.165	.179	.170	.170	.187	.223		17	.267
-500	.170	.144	.162	.171	.193	.231		18	.165
-375	.161	.167	.163	.175	.205	.252		19	.304
-250	.170	.171	.168	.195	.229	.270		20	.321
-125	.213	.213	.213	.213	.267			21	.319
.000	.300	.300	.294	.299	.306	.304		22	.311
$\Delta = 45^\circ$									
-6.000	.006	.003	.011	.004	.020	.041		1	.225
-5.500	.005	.003	.011	.001	.020	.277		2	.243
-5.000	.007	.001	.010	-.004	.019	.334		3	.293
-4.500	.005	.002	.011	.004	.182	.344		4	.355
-4.000	.006	.005	.011	.060	.299	.340		5	.413
-3.500	.133	.084	.154	.254	.326	.299		6	.432
-3.000	.247	.248	.277	.298	.327	.249		7	.308
-2.750	.270	.279	.287	.303	.329	.225		8	.317
-2.500	.279	.284	.298	.303	.321	.212		9	.322
-2.250	.288	.292	.299	.303	.297	.202		10	.317
-2.000	.278	.291	.301	.304	.276	.190		11	.303
-1.750	.288	.293	.303	.297	.251	.189		12	.207
-1.500	.285	.293	.288	.268	.223	.186		13	.217
-1.250	.248	.277	.265	.236	.203	.188		14	.240
-1.000	.243	.244	.223	.197	.189	.199		15	.265
-750	.199	.198	.177	.176	.186	.211		16	.280
-625	.165	.179	.170	.170	.187	.223		17	.267
-500	.170	.144	.162	.171	.193	.231		18	.165
-375	.161	.167	.163	.175	.205	.252		19	.304
-250	.170	.171	.168	.195	.229	.270		20	.321
-125	.213	.213	.213	.213	.267			21	.319
.000	.300	.300	.294	.299	.306	.304		22	.311
$\Delta = 45^\circ$									
-6.000	.006	.003	.011	.004	.020	.041		1	.225
-5.500	.005	.003	.011	.001	.020	.277		2	.243
-5.000	.007	.001	.010	-.004	.019	.334		3	.293
-4.500	.005	.002	.011	.004	.182	.344		4	.355
-4.000	.006	.005	.011	.060	.299	.340		5	.413
-3.500	.133	.084	.154	.254	.326	.299		6	.432
-3.000	.247	.248	.277	.298	.327	.249		7	.308
-2.750	.270	.279	.287	.303	.329	.225		8	.317
-2.500	.279	.284	.298	.303	.321	.212		9	.322
-2.250	.288	.292	.299	.303	.297	.202		10	.317
-2.000	.278	.291	.301	.304	.276	.190		11	.303
-1.750	.288	.293	.303	.297	.251	.189		12	.207
-1.500	.285	.293	.288	.268	.223	.186		13	.217
-1.250	.248	.277	.265	.236	.203	.188		14	.240
-1.000	.243	.244	.223	.197	.189	.199		15	.265
-750	.199	.198	.177	.176	.186	.211		16	.280
-625	.165	.179	.170	.170	.187	.223		17	.267
-500	.170	.144	.162	.171	.193	.231		18	.165
-375	.161	.167	.163	.175	.205	.252		19	.304
-250	.170	.171	.168	.195	.229	.270		20	.321
-125	.213	.213	.213	.213	.267			21	.319
.000	.300	.300	.294	.299	.306	.304		22	.311
$\Delta = 45^\circ$									
-6.000	.006	.003	.011	.004	.020	.041		1	.225
-5.500	.005	.003	.011	.001	.020	.277		2	.243
-5.000	.007	.001	.010	-.004	.019	.334		3	.293
-4.500	.005	.002	.011	.004	.182	.344		4	.355
-4.000	.006	.005	.011	.060	.299	.340		5	.413
-3.500	.133	.084	.154	.254	.326	.299		6	.432
-3.000	.247	.248	.277	.298	.327	.249		7	.308
-2.750	.270	.279	.287	.303	.329	.225		8	.317
-2.500	.279	.284	.298	.303	.321	.212		9	.322
-2.250	.288	.292	.299	.303	.297	.202		10	.317

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Table 07 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 4 $M = 1.61$ $R = 0.30 \times 10^6$

x, in.	Plate							Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	.005	.001	.011	.000	.016	.020		1	.195
-5.500	.005	.001	.009	.000	.017	.134		2	.230
-5.000	.003	.000	.009	-.004	.015	.220		3	.257
-4.500	.004	.001	.011	.001	.055	.237		4	.269
-4.000	.005	.007	.010	.011	.167	.245	.110	5	.251
-3.500	.053	.027	.051	.111	.213	.238	.150	6	.200
-3.000	.131	.123	.147	.181	.227	.213	.164	7	.059
-2.750	.158	.167	.172	.192	.227	.193	.170	8	-.265
-2.500	.173	.178	.190	.203	.227	.179	.176	9	.280
-2.250	.192	.192	.197	.205	.220	.162	.180	10	.290
-2.000	.190	.196	.204	.206	.225	.152	.180	11	-.310
-1.750	.206	.204	.209	.211	.218	.151	.179	12	.107
-1.500	.201	.207	.205	.212	.205	.151	.180	13	.114
-1.250	.179	.206	.212	.206	.176	.151	.178	14	.138
-1.000	.204	.209	.202	.190	.155	.160	.169	15	.165
-.750	.191	.194	.173	.148	.147	.171	.177	16	.179
-.625	.171	.170	.148	.131	.146	.172	.171	17	.154
-.500	.145	.131	.127	.127	.150	.177	.168	18	.043
-.375	.120	.129	.120	.131	.158	.186	.168	19	-.268
-.250	.127	.128	.128	.146	.173	.195	.156	20	-.282
-.125	.159	.159	.160	.192	.192	.192	.134	21	-.282
.000	.215	.217	.213	.212	.223	.221	.133	22	-.281
$\Delta = 75^\circ$									
-6.000	.010	.001	.011	.001	.015	.068		1	.035
-5.500	.011	.000	.008	.002	.019	.098		2	.038
-5.000	.017	.003	.007	.000	.045	.106		3	.036
-4.500	.037	.011	.016	.021	.080	.102		4	.030
-4.000	.054	.039	.045	.055	.093	.091	.043	5	.020
-3.500	.054	.058	.072	.071	.086	.079	.038	6	-.005
-3.000	.046	.054	.068	.062	.074	.069	.034	7	-.072
-2.750	.048	.060	.058	.056	.068	.064	.034	8	-.130
-2.500	.043	.047	.055	.052	.064	.060	.034	9	-.143
-2.250	.048	.044	.050	.047	.056	.055	.033	10	-.143
-2.000	.035	.041	.046	.047	.056	.052	.032	11	-.157
-1.750	.048	.039	.040	.045	.055	.054	.032	12	.051
-1.500	.039	.036	.037	.045	.056	.054	.031	13	.052
-1.250	.023	.038	.038	.045	.056	.054	.034	14	.050
-1.000	.041	.042	.042	.046	.061	.056	.037	15	.047
-.750	.046	.044	.045	.049	.060	.056	.042	16	.042
-.625	.042	.047	.046	.049	.060	.056	.043	17	.023
-.500	.050	.038	.046	.049	.059	.055	.047	18	-.033
-.375	.046	.044	.047	.049	.058	.054	.049	19	-.179
-.250	.045	.044	.044	.052	.058	.054	.050	20	-.197
-.125	.046	.045	.045	.055	.055	.054	.054	21	-.196
.000	.054	.054	.055	.054	.062	.059	.053	22	-.145
$\Delta = 75^\circ$									
-6.000	.010	.001	.011	.001	.015	.068		1	.035
-5.500	.011	.000	.008	.002	.019	.098		2	.038
-5.000	.017	.003	.007	.000	.045	.106		3	.036
-4.500	.037	.011	.016	.021	.080	.102		4	.030
-4.000	.054	.039	.045	.055	.093	.091	.043	5	.020
-3.500	.054	.058	.072	.071	.086	.079	.038	6	-.005
-3.000	.046	.054	.068	.062	.074	.069	.034	7	-.072
-2.750	.048	.060	.058	.056	.068	.064	.034	8	-.130
-2.500	.043	.047	.055	.052	.064	.060	.034	9	-.143
-2.250	.048	.044	.050	.047	.056	.055	.033	10	-.143
-2.000	.035	.041	.046	.047	.056	.052	.032	11	-.157
-1.750	.048	.039	.040	.045	.055	.054	.032	12	.051
-1.500	.039	.036	.037	.045	.056	.054	.031	13	.052
-1.250	.023	.038	.038	.045	.056	.054	.034	14	.050
-1.000	.041	.042	.042	.046	.061	.056	.037	15	.047
-.750	.046	.044	.045	.049	.060	.056	.042	16	.042
-.625	.042	.047	.046	.049	.060	.056	.043	17	.023
-.500	.050	.038	.046	.049	.059	.055	.047	18	-.033
-.375	.046	.044	.047	.049	.058	.054	.049	19	-.179
-.250	.045	.044	.044	.052	.058	.054	.050	20	-.197
-.125	.046	.045	.045	.055	.055	.054	.054	21	-.196
.000	.054	.054	.055	.054	.062	.059	.053	22	-.145
$\Delta = 75^\circ$									
-6.000	.133	.121	.111	.100			-.180		
-5.750	.140	.123	.107	.084	-.069		-.191		
-5.500	.143	.119	.107	.081	-.047		-.194		
-5.000	.159	.121	.105	.079	-.031	-.017	-.174		
-4.750	.155	.154	.100	.067	-.032	.004	-.184		
-4.500	.221	.228	.248	.136	-.027	.031	-.118		
-4.250	.222	.228	.248	.136	-.027	.027	-.118		
-4.000	.186	.222	.277	.162	-.015	.049	-.090		
-3.750	.030	.127	.206	.074	-.010	.062	-.143		
-3.500	.006	.047	.107	.136	-.031	.062	-.019		
-3.250	.009	.014	.041	.152	-.047	.052	-.053		
-3.000	.011	.004	.005	.056	-.025	.043	-.060		
-2.750	.011	.002	.006	.019	-.020	.031	-.058		
-2.500	.009	.004	.006	.058	-.073	.128	-.051		
-2.250	.007	.006	.006	.068	-.112	.177			
-2.000	.004	.013	.005	.064	-.052	.115			
-1.750	.008	.010	.002	.058	-.003	.097			
-1.500	.009	.011	.005	.055	-.006	.054			
-1.250	.005	.014	.002	.053	-.009	.052			
.000	.008	.019	.005	.051	-.004	.078			

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Table 08
Plate and Spoiler Pressure Coefficients
Configuration 5 M = 1.61 R = 0.14 × 10⁶

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 45^\circ$									
-6.000	-0.017	-0.010	0.004	0.005	0.119	0.385		1	.427
-5.500	-0.135	-0.015	0.048	0.243	0.369	0.256		2	.411
-5.000	-0.267	-0.247	0.276	0.330	0.353	0.214		3	.403
-4.500	-0.292	-0.309	0.332	0.348	0.302	0.208		4	.395
-4.000	-0.303	-0.315	0.340	0.324	0.234	0.214	0.282	5	.425
-3.500	-0.303	-0.319	0.332	0.281	0.198	0.250	0.260	6	.501
-3.000	-0.265	-0.294	0.278	0.222	0.180	0.307	0.270	7	.300
-2.750	-0.259	-0.321	0.238	0.195	0.176	0.355	0.254	8	-.353
-2.500	-0.228	-0.245	0.201	0.178	0.170	0.395	0.242	9	-.351
-2.250	-0.232	-0.226	0.172	0.162	0.176	0.435	0.216	10	-.333
-2.000	-0.153	-0.191	0.151	0.154	0.198	0.465	0.186	11	-.335
-1.750	-0.168	-0.158	0.135	0.162	0.222	0.491	0.158	12	.254
-1.500	-0.139	-0.139	0.124	0.176	0.266	0.499	0.134	13	.216
-1.250	-0.079	-0.151	0.131	0.200	0.321	0.505	0.116	14	.190
-1.000	-0.135	-0.170	0.189	0.265	0.379	0.505	0.106	15	.194
-0.750	-0.191	-0.211	0.243	0.338	0.429	0.503	0.104	16	.226
-0.625	-0.234	-0.257	0.286	0.370	0.445	0.491	0.116	17	.276
-0.500	-0.298	-0.303	0.335	0.405	0.451	0.487	0.136	18	.294
-0.375	-0.348	-0.373	0.378	0.438	0.455	0.477	0.168	19	-.272
-0.250	-0.392	-0.408	0.413	0.465	0.457	0.465	0.222	20	-.270
-0.125	-0.431	-0.416			0.451		0.274	21	-.262
0.000	-0.450	-0.458	0.446	0.435	0.451	0.453	0.266	22	-.272
-0.250	-0.361	-0.342	-0.357	-0.335			-0.274		
-0.375	-0.352	-0.348	-0.365	-0.338	-0.329		-0.272		
-0.500	-0.359	-0.328	-0.354	-0.335	-0.325		-0.274		
-0.750	-0.352	-0.338	-0.354	-0.313	-0.315	-0.302	-0.276		
1.000	-0.359	-0.234	-0.346	-0.313	-0.305	-0.292	-0.282		
1.250	-0.390	-0.350	-0.346	-0.309	-0.298	-0.282	-0.288		
1.500	-0.402	-0.348	-0.357	-0.307	-0.290	-0.278	-0.280		
1.750	-0.116	-0.348	-0.346	-0.311	-0.288	-0.272	-0.264		
2.000	-0.346	-0.334	-0.235	-0.302	-0.292	-0.270	-0.244		
2.250	-0.269	-0.309	-0.284	-0.290	-0.288	-0.270	-0.226		
2.500	-0.253	-0.292	-0.251	-0.274	-0.290	-0.264	-0.212		
2.750	-0.222	-0.269	-0.243	-0.254	-0.286	-0.270	-0.196		
3.000	-0.214	-0.236	-0.222	-0.238	-0.282	-0.272	-0.190		
3.500	-0.160	-0.184	-0.170	-0.212	-0.258		-0.268		
4.000	-0.041	-0.135	-0.167	-0.188	-0.236		-0.266		
4.500	-0.097	-0.041	-0.149	-0.164	-0.206		-0.268		
5.000	-0.058	-0.004	-0.116	-0.140	-0.184		-0.264		
5.500	-0.050	-0.114	-0.086	-0.120	-0.166		-0.262		
6.000	-0.035	-0.081	-0.027	-0.108	-0.140		-0.254		

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Table 09
 Plate and Spoiler Pressure Coefficients
 Configuration 5 $M = 1.61$ $R = 0.30 \times 10^6$

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 45^\circ$									
-5.000	-0.006	-0.002	.004	.004	.318	.370		1	.422
-5.500	.147	.026	.052	.260	.358	.266		2	.413
-4.000	.264	.255	.281	.325	.338	.235		3	.395
-4.500	.290	.302	.318	.338	.291	.219		4	.395
-3.000	.298	.312	.322	.326	.243	.224	.273	5	.430
-3.500	.295	.311	.323	.285	.206	.249	.270	6	.497
-3.000	.284	.299	.266	.230	.182	.320	.264	7	.270
-2.750	.270	.286	.232	.204	.171	.367	.251	8	-.361
-2.500	.247	.250	.203	.187	.175	.404	.239	9	-.357
-2.250	.221	.219	.175	.171	.179	.444	.215	10	-.348
-2.000	.180	.190	.160	.161	.196	.472	.190	11	-.345
-1.750	.165	.161	.144	.165	.227	.496	.165	12	-.253
-1.500	.145	.145	.139	.174	.277	.509	.144	13	-.209
-1.250	.119	.144	.134	.206	.327	.511	.129	14	-.185
-1.000	.148	.162	.197	.264	.387	.509	.116	15	.193
-0.750	.195	.214	.257	.337	.434	.502	.121	16	.226
-0.625	.242	.257	.302	.375	.450	.491	.127	17	.281
-0.500	.296	.314	.350	.405	.454	.483	.141	18	.283
-0.375	.349	.368	.391	.427	.457	.478	.174	19	-.289
-0.250	.400	.404	.416	.442	.458	.460	.222	20	-.291
-0.125	.432		.437		.448		.279	21	-.286
.000	.435	.440	.433	.441	.438	.436	.269	22	-.286
+250									
+375	-0.361	-0.360	.353	.343					.4285
+500	-0.361	-0.358	.351	.342	-0.331				.4287
+750	-0.354	-0.353	.343	.328	.328				.4287
+1.000	-0.358	-0.325	.340	.325	.307	-0.310			.4287
+1.250	-0.393	-0.359	.346	.315	.303	.295			.4295
+1.500	-0.406	-0.360	.343	.318	.301	.294			.4287
+1.750	-0.294	-0.351	.330	.315	.301	.289			.4274
+2.000	-0.325	-0.345	.290	.310	.303	.288			.4254
+2.250	-0.281	-0.327	.282	.295	.307	.285			.4233
+2.500	-0.242	-0.304	.255	.279	.304	.287			.4213
+2.750	-0.214	-0.276	.239	.260	.300	.286			.4196
+3.000	-0.197	-0.246	.220	.241	.293	.293			.4180
+3.500	-0.150	-0.188	.181	.213	.249	.285			
+4.000	-0.038	-0.132	.161	.186	.247	.286			
+4.500	.088	-0.058	.136	.161	.220	.290			
+5.000	.062	.014	.111	.135	.190	.286			
+5.500	.006	.091	.085	.115	.165	.281			
+6.000	.037	.071	.042	.100	.143	.265			

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Table 10
Plate and Spoiler Pressure Coefficients
Configuration 6 $M = 1.61$ $R = 0.14 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = 00^\circ$										
-6.000	-0.014	.002	.053	.152	.356	.435		1	*.554	
-5.500	-0.004	.031	.088	.227	.380	.465		2	*.506	
-5.000	.237	.293	.176	.269	.405	.487		3	*.495	
-4.500	.364	.370	.330	.315	.431	.504		4	*.495	
-4.000	.377	.385	.387	.360	.459	.534		5	*.425	
-3.500	.387	.387	.387	.379	.492	.597		6	*.382	
-3.000	.383	.393	.387	.365	.467	.574		7	*.142	
-2.750	.397	.444	.368	.373	.447	.406		8	*.358	
-2.500	.401	.411	.379	.376	.427	.443		9	*.366	
-2.250	.430	.422	.383	.379	.403	.432		10	*.364	
-2.000	.397	.434	.395	.387	.384	.451		11	*.370	
-1.750	.432	.434	.405	.397	.384	.463		12	*.811	
-1.500	.424	.442	.397	.400	.394	.457		13	*.700	
-1.250	.405	.460	.420	.413	.407	.455		14	*.680	
-1.000	.460	.499	.477	.451	.427	.471		15	*.756	
-0.750	.501	.544	.523	.525	.492	.524		16	*.843	
-0.625	.518	.565	.549	.580	.538	.550		17	*.902	
-0.500	.546	.520	.519	.559	.578	.585		18	*.791	
-0.375	.565	.532	.600	.627	.601	.605		19	*.376	
-0.250	.567	.598	.613	.640	.613	.611		20	*.372	
-0.125	.598	.608	.608	.605	.605	.894		21	*.372	
*.000	.608	.622	.611	.619	.599	.603		22	*.382	
$\Delta = 15^\circ$										
-6.000	-0.008	-0.004	.055	.160	.316	.400		1	*.505	
-5.500	-0.006	.000	.125	.237	.362	.388		2	*.526	
-5.000	.029	.072	.225	.293	.384	.384		3	*.490	
-4.500	.303	.303	.311	.360	.401	.388		4	*.530	
-4.000	.372	.377	.362	.384	.413	.394		5	*.576	
-3.500	.395	.405	.393	.408	.423	.403		6	*.655	
-3.000	.407	.407	.407	.427	.431	.407		7	*.558	
-2.750	.415	.463	.391	.435	.431	.411		8	*.354	
-2.500	.430	.428	.405	.440	.431	.415		9	*.354	
-2.250	.450	.442	.405	.443	.431	.417		10	*.352	
-2.000	.424	.442	.413	.443	.427	.425		11	*.358	
-1.750	.454	.452	.411	.445	.423	.441		12	*.787	
-1.500	.438	.442	.401	.432	.419	.459		13	*.682	
-1.250	.385	.428	.393	.419	.419	.487		14	*.704	
-1.000	.420	.420	.416	.419	.431	.534		15	*.799	
-0.750	.420	.430	.416	.437	.465	.585		16	*.884	
-0.625	.432	.434	.424	.456	.494	.615		17	*.949	
-0.500	.442	.438	.467	.491	.538	.645		18	*.696	
-0.375	.471	.426	.509	.544	.587	.667		19	*.356	
-0.250	.532	.548	.563	.613	.645	.665		20	*.356	
-0.125	.661	.659	.659	.657	.657	.827		21	*.352	
*.000	.616	.621	.616	.597	.603	.846		22	*.362	

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Table 10 Continued
Plate and Spoiler Pressure Coefficients
Configuration 6 $M = 1.61$ $R = 0.14 \times 10^6$

x , in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Plate		Spoiler	
								Orifice No.	Row 5	Row 8	Row 10
$\Delta = 30^\circ$											
-6,000	.012	.000	.018	.173	.269	.316		1	.419		
-5,500	.029	.008	.123	.272	.324	.303		2	.344		
-5,000	.049	.172	.240	.331	.350	.255		3	.348		
-4,500	.235	.313	.344	.373	.352	.243		4	.364		
-4,000	.370	.350	.364	.371	.334	.233	.281	5	.384		
-3,500	.387	.358	.395	.376	.303	.229	.285	6	.425		
-3,000	.358	.366	.381	.357	.271	.235	.297	7	.316		
-2,500	.358	.415	.346	.349	.259	.239	.356	8	.326		
-2,000	.370	.377	.340	.333	.259	.245	.415	9	.328		
-2,250	.387	.381	.332	.323	.245	.251	.442	10	.329		
-2,000	.342	.366	.319	.309	.247	.255	.459	11	.334		
-1,750	.368	.356	.297	.307	.245	.291	.455	12	.506		
-1,500	.346	.336	.278	.290	.251	.305	.443	13	.475		
-1,250	.301	.321	.256	.277	.259	.328	.437	14	.471		
-1,000	.315	.301	.293	.275	.273	.368	.435	15	.485		
-750	.299	.287	.291	.285	.311	.407	.423	16	.506		
-625	.301	.291	.296	.301	.336	.427	.419	17	.498		
-500	.299	.262	.317	.328	.366	.447	.421	18	.370		
-375	.327	.270	.349	.371	.411	.461	.435	19	.314		
-250	.366	.368	.397	.435	.455	.463	.467	20	.311		
-125	.460		.469		.467		.522	21	.305		
0,000	.492	.452	.461	.459	.491	.447	.526	22	.311		
$\Delta = 45^\circ$											
-6,000	.006	.010	.002	.021	.235	.277		1	.330		
-5,500	.031	.029	.002	.184	.305	.323		2	.307		
-5,000	.084	.045	.186	.299	.324	.198		3	.279		
-4,500	.129	.203	.305	.352	.311	.190		4	.269		
-4,000	.311	.348	.324	.352	.271	.200	.279	5	.293		
-3,500	.387	.336	.344	.347	.218	.218	.253	6	.350		
-3,000	.325	.327	.323	.301	.178	.253	.320	7	.299		
-2,750	.323	.381	.338	.267	.160	.281	.360	8	.307		
-2,500	.319	.332	.317	.227	.160	.297	.370	9	.311		
-2,250	.323	.317	.282	.192	.158	.309	.356	10	.307		
-2,000	.266	.276	.244	.168	.164	.322	.340	11	.320		
-1,750	.262	.235	.201	.157	.174	.340	.312	12	.239		
-1,500	.194	.188	.153	.149	.194	.346	.291	13	.202		
-1,250	.108	.162	.141	.163	.216	.356	.261	14	.180		
-1,000	.143	.151	.163	.189	.253	.370	.218	15	.190		
-750	.145	.172	.192	.229	.297	.378	.180	16	.216		
-625	.162	.209	.211	.256	.312	.384	.160	17	.265		
-500	.188	.223	.256	.296	.336	.380	.156	18	.202		
-375	.262	.229	.283	.325	.352	.374	.174	19	.273		
-250	.305	.315	.328	.373	.362	.360	.214	20	.255		
-125	.356		.363		.352		.271	21	.212		
0,000	.340	.350	.344	.347	.336	.340	.261	22	.223		
$\Delta = 45^\circ$											
-6,000	.006	.010	.002	.021	.235	.277		1	.330		
-5,500	.031	.029	.002	.184	.305	.323		2	.307		
-5,000	.084	.045	.186	.299	.324	.198		3	.279		
-4,500	.129	.203	.305	.352	.311	.190		4	.269		
-4,000	.311	.348	.324	.352	.271	.200	.279	5	.293		
-3,500	.387	.336	.344	.347	.218	.218	.253	6	.350		
-3,000	.325	.327	.323	.301	.178	.253	.320	7	.299		
-2,750	.323	.381	.338	.267	.160	.281	.360	8	.307		
-2,500	.319	.332	.317	.227	.160	.297	.370	9	.311		
-2,250	.323	.317	.282	.192	.158	.309	.356	10	.307		
-2,000	.266	.276	.244	.168	.164	.322	.340	11	.320		
-1,750	.262	.235	.201	.157	.174	.340	.312	12	.239		
-1,500	.194	.188	.153	.149	.194	.346	.291	13	.202		
-1,250	.108	.162	.141	.163	.216	.356	.261	14	.180		
-1,000	.143	.151	.163	.189	.253	.370	.218	15	.190		
-750	.145	.172	.192	.229	.297	.378	.180	16	.216		
-625	.162	.209	.211	.256	.312	.384	.160	17	.265		
-500	.188	.223	.256	.296	.336	.380	.156	18	.202		
-375	.262	.229	.283	.325	.352	.374	.174	19	.273		
-250	.305	.315	.328	.373	.362	.360	.214	20	.255		
-125	.356		.363		.352		.271	21	.212		
0,000	.340	.350	.344	.347	.336	.340	.261	22	.223		
$\Delta = 45^\circ$											
-6,000	.006	.010	.002	.021	.235	.277		1	.330		
-5,500	.031	.029	.002	.184	.305	.323		2	.307		
-5,000	.084	.045	.186	.299	.324	.198		3	.279		
-4,500	.129	.203	.305	.352	.311	.190		4	.269		
-4,000	.311	.348	.324	.352	.271	.200	.279	5	.293		
-3,500	.387	.336	.344	.347	.218	.218	.253	6	.350		
-3,000	.325	.327	.323	.301	.178	.253	.320	7	.299		
-2,750	.323	.381	.338	.267	.160	.281	.360	8	.307		
-2,500	.319	.332	.317	.227	.160	.297	.370	9	.311		
-2,250	.323	.317	.282	.192	.158	.309	.356	10	.307		
-2,000	.266	.276	.244	.168	.164	.322	.340	11	.320		
-1,750	.262	.235	.201	.157	.174	.340	.312	12	.239		
-1,500	.194	.188	.153	.149	.194	.346	.291	13	.202		
-1,250	.108	.162	.141	.163	.216	.356	.261	14	.180		
-1,000	.143	.151	.163	.189	.253	.370	.218	15	.190		
-750	.145	.172	.192	.229	.297	.378	.180	16	.216		
-625	.162	.209	.211	.256	.312	.384	.160	17	.265		
-500	.188	.223	.256	.296	.336	.380	.156	18	.202		
-375	.262	.229	.283	.325	.352	.374	.174	19	.273		
-250	.305	.315	.328	.373	.362	.360	.214	20	.255		
-125	.356		.363		.352		.271	21	.212		
0,000	.340	.350	.344	.347	.336	.340	.261	22	.223		
$\Delta = 45^\circ$											
-6,000	.006	.010	.002	.021	.235	.277		1	.330		
-5,500	.031	.029	.002	.184	.305	.323		2	.307		
-5,000	.084	.045	.186	.299	.324	.198		3	.279		
-4,500	.129	.203	.305	.352	.311	.190		4	.269		
-4,000	.311	.348	.324	.352	.271	.200	.279	5	.293		
-3,500	.387	.336	.344	.347	.218	.218	.253	6	.350		
-3,000	.325	.327	.323	.301	.178	.253	.320	7	.299		
-2,750	.323	.381	.338	.267	.160	.281	.360	8	.307		
-2,500	.319	.332	.317	.227	.160	.297	.370	9	.311		
-2,250	.323	.317	.282	.192	.158	.309	.356	10	.307		
-2,000	.266	.276	.244	.168	.164	.322	.340	11	.320		
-1,750	.262	.235	.201	.157	.174	.340	.312	12	.239		
-1,500	.194	.188	.153	.149	.194	.346	.291	13	.202		
-1,250	.108	.162	.141	.163	.216	.356	.261	14	.180		
-1,000	.143	.151	.163	.189	.253	.370	.218	15	.190		
-750	.145	.172	.192	.229	.297	.378	.180	16	.216		
-625	.162	.209	.211	.256	.312	.384	.160	17	.265		

Table 10 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 6 $M = 1.61$ $R = 0.14 \times 10^6$

x , in.	Plate								Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9			
$\Delta = 60^\circ$										
-6.000	.010	.004	.010	-.003	.012	.243			1	.303
-5.500	.016	.008	.004	-.005	.127	.206			2	.309
-5.000	.029	.020	.014	.016	.231	.107			3	.269
-4.500	.055	.041	.035	.179	.255	.093			4	.307
-4.000	.108	.063	.184	.221	.257	.170	.202		5	.309
-3.500	.233	.250	.244	.232	.237	.259	.214		6	.289
-3.000	.250	.254	.237	.240	.156	.334	.229		7	.018
-2.750	.254	.301	.254	.237	.115	.352	.245		8	-.263
-2.500	.246	.244	.254	.227	.113	.360	.257		9	-.273
-2.250	.262	.254	.258	.197	.133	.358	.249		10	-.265
-2.000	.229	.239	.244	.136	.174	.358	.235		11	-.337
-1.750	.241	.225	.205	.120	.229	.354	.220		12	.196
-1.500	.192	.180	.151	.149	.231	.348	.208		13	.190
-1.250	.106	.131	.143	.203	.301	.340	.182		14	.194
-1.000	.159	.168	.132	.301	.311	.340	.150		15	.204
-0.750	.225	.235	.248	.291	.320	.334	.131		16	.216
-0.625	.241	.282	.259	.301	.318	.328	.138		17	.225
-0.500	.280	.276	.285	.309	.312	.322	.148		18	.097
-0.375	.270	.262	.298	.312	.307	.320	.168		19	-.239
-0.250	.299	.311	.291	.325	.311	.316	.182		20	-.216
-0.125	.307	.291	.315	.312	.312	.316	.194		21	-.182
.000	.336	.344	.315	.333	.328	.336	.190		22	-.186
$\Delta = 75^\circ$										
-6.000	-.008	.000	.002	-.019	-.008	.089			1	.091
-5.500	-.008	-.010	-.002	-.019	-.002	.180			2	.091
-5.000	.020	.002	.005	-.008	.071	.148			3	.093
-4.500	.051	.023	.027	.029	.131	.144			4	.081
-4.000	.072	.045	.039	.056	.125	.117	.059		5	.073
-3.500	.076	.100	.113	.096	.107	.099	.059		6	.053
-3.000	.065	.080	.062	.055	.091	.083	.065		7	-.113
-2.750	.065	.143	.064	.072	.087	.077	.061		8	-.168
-2.500	.063	.072	.092	.061	.085	.077	.065		9	-.188
-2.250	.098	.084	.086	.067	.067	.091	.063		10	-.208
-2.000	.059	.065	.088	.061	.073	.083	.063		11	-.263
-1.750	.082	.076	.088	.067	.067	.087	.069		12	.073
-1.500	.063	.072	.069	.063	.091	.067	.067		13	.075
-1.250	.023	.076	.070	.061	.073	.095	.069		14	.083
-1.000	.068	.078	.067	.067	.081	.099	.073		15	.086
-0.750	.072	.057	.053	.069	.087	.097	.069		16	.085
-0.625	.047	.076	.064	.077	.089	.095	.056		17	.077
-0.500	.072	.061	.072	.068	.087	.093	.053		18	.032
-0.375	.065	.061	.083	.091	.089	.093	.063		19	-.220
-0.250	.084	.092	.075	.112	.089	.091	.069		20	-.178
-0.125	.096	.075			.091		.077		21	-.057
.000	.108	1.328	.104	.115	.103	.107	.079		22	-.079
$\Delta = 75^\circ$										
-6.000	-.008	-.000	.002	-.019	-.008	.089			1	.091
-5.500	-.008	-.010	-.002	-.019	-.002	.180			2	.091
-5.000	.020	.002	.005	-.008	.071	.148			3	.093
-4.500	.051	.023	.027	.029	.131	.144			4	.081
-4.000	.072	.045	.039	.056	.125	.117	.059		5	.073
-3.500	.076	.100	.113	.096	.107	.099	.059		6	.053
-3.000	.065	.080	.062	.055	.091	.083	.065		7	-.113
-2.750	.065	.143	.064	.072	.087	.077	.061		8	-.168
-2.500	.063	.072	.092	.061	.085	.077	.063		9	-.188
-2.250	.098	.084	.086	.067	.067	.091	.063		10	-.208
-2.000	.059	.065	.088	.061	.073	.083	.063		11	-.263
-1.750	.082	.076	.088	.067	.067	.087	.069		12	.073
-1.500	.063	.072	.069	.063	.091	.091	.067		13	.075
-1.250	.023	.076	.070	.061	.073	.095	.069		14	.083
-1.000	.068	.078	.067	.067	.081	.099	.073		15	.086
-0.750	.072	.057	.053	.069	.087	.097	.069		16	.085
-0.625	.047	.076	.064	.077	.089	.095	.056		17	.077
-0.500	.072	.061	.072	.068	.087	.093	.053		18	.032
-0.375	.065	.061	.083	.091	.089	.093	.063		19	-.220
-0.250	.084	.092	.075	.112	.089	.091	.069		20	-.178
-0.125	.096	.075			.091		.077		21	-.057
.000	.108	1.328	.104	.115	.103	.107	.079		22	-.079

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Table 11
Plate and Spoiler Pressure Coefficients
Configuration 6 M = 1.61 R = 0.30 x 10⁶

x, in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Plate		Spoiler	
								Orifice No.	Row 2	Row 5	Row 8
$\Delta = 00^\circ$											
-6.000	-006	001	005	008	093	074	057	1	058		
-5.500	-001	000	043	070	0403	0383	0357	2	054		
-5.000	006	070	030	038	0410	0395	0372	3	041		
-4.500	028	030	0373	0402	0416	0379	0357	4	062		
-4.000	059	076	0396	0407	0416	0372	0357	5	052		
-3.500	082	094	0407	0414	0416	0366	0341	6	075		
-3.000	096	0402	0412	0417	0409	0373	0349	7	084		
-2.750	001	0416	0411	0420	0402	0379	0360	8	064		
-2.500	001	0408	0417	0420	0395	0387	0364	9	033		
-2.250	014	0415	0414	0415	0391	0394	0407	10	036		
-2.000	002	0415	0412	0410	0387	0366	0410	11	033		
-1.750	013	0416	0410	0409	0387	0404	0406	12	038		
-1.500	001	0405	0398	0399	0385	0409	0395	13	047		
-1.250	071	059	0393	0394	0389	0422	0380	14	049		
-1.000	076	087	0391	0393	0400	0446	0370	15	047		
-0.750	071	084	0388	0399	0418	0477	0368	16	029		
-0.625	083	083	0394	0406	0429	0491	0375	17	061		
-0.500	095	079	0407	0421	0452	0508	0398	18	042		
-0.375	017	0417	0427	0445	0480	0528	0425	19	036		
-0.250	056	0457	0471	0493	0525	0543	0497	20	0364		
-0.125	037	054	0544	0555	0555	0577	0585	21	0368		
0.000	058	0548	0553	0554	0554	0554	0585	22	0364		
$\Delta = 15^\circ$											
-6.000	-001	004	018	025	074	0309	0356	1	017		
-5.500	001	011	026	036	075	0295	0365	2	063		
-5.000	006	0213	0340	0371	0376	0295	0369	3	049		
-4.500	006	0333	0362	0378	0374	0298	0364	4	076		
-4.000	031	0355	0366	0371	0368	0304	0356	5	025		
-3.500	070	0365	0367	0374	0367	0317	0374	6	059		
-3.000	075	0373	0368	0376	0368	0332	0383	7	018		
-2.750	080	0390	0375	0374	0367	0344	0383	8	0354		
-2.500	084	0379	0376	0376	0368	0349	0390	9	0354		
-2.250	092	0387	0376	0375	0371	0353	0394	10	0359		
-2.000	081	0394	0380	0376	0368	0356	0395	11	0351		
-1.750	098	0394	0383	0378	0367	0360	0391	12	0369		
-1.500	093	0396	0375	0374	0361	0368	0379	13	0475		
-1.250	063	0386	0372	0363	0359	0389	0365	14	0449		
-1.000	070	0372	0369	0358	0368	0426	0348	15	0491		
-0.750	057	0361	0360	0369	0394	0474	0344	16	0372		
-0.625	070	0369	0371	0384	0420	0506	0352	17	0684		
-0.500	085	0371	0391	0406	0454	0537	0369	18	0734		
-0.375	041	0415	0424	0448	0496	0571	0409	19	0349		
-0.250	057	0467	0478	0506	0555	0580	0488	20	0351		
-0.125	052	0561	0561	0560	0563	0559	0613	21	0350		
0.000	0561	0559	0560	0560	0563	0559	0614	22	0348		
$\Delta = 15^\circ$											
-6.000	-001	004	018	025	074	0309	0347	1	017		
-5.500	001	011	026	036	075	0295	0348	2	063		
-5.000	006	0213	0340	0371	0376	0295	0351	3	049		
-4.500	006	0333	0362	0378	0374	0298	0344	4	076		
-4.000	031	0355	0366	0371	0368	0304	0345	5	025		
-3.500	070	0365	0367	0374	0367	0317	0374	6	059		
-3.000	075	0373	0368	0376	0368	0332	0383	7	018		
-2.750	080	0390	0375	0374	0367	0344	0383	8	0354		
-2.500	084	0379	0376	0376	0368	0349	0390	9	0354		
-2.250	092	0387	0376	0375	0371	0353	0394	10	0359		
-2.000	081	0394	0380	0376	0368	0356	0395	11	0351		
-1.750	098	0394	0383	0378	0367	0360	0391	12	0369		
-1.500	093	0396	0375	0374	0361	0368	0379	13	0475		
-1.250	063	0386	0372	0363	0359	0389	0365	14	0449		
-1.000	070	0372	0369	0358	0368	0426	0348	15	0491		
-0.750	057	0361	0360	0369	0394	0474	0344	16	0372		
-0.625	070	0369	0371	0384	0420	0506	0352	17	0684		
-0.500	085	0371	0391	0406	0454	0537	0369	18	0734		
-0.375	041	0415	0424	0448	0496	0571	0409	19	0349		
-0.250	057	0467	0478	0506	0555	0580	0488	20	0351		
-0.125	052	0561	0561	0560	0563	0559	0613	21	0350		
0.000	0561	0559	0560	0560	0563	0559	0614	22	0348		

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Table 11 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 6 M = 1.61 R = 0.30 x 10⁶

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 30^\circ$									
-6.000	.000	.001	.007	.253	.357	.217			1 .370
-5.500	.054	.039	.221	.354	.360	.263			2 .309
-5.000	.279	.296	.335	.366	.356	.236			3 .294
-4.500	.318	.344	.358	.374	.332	.224			4 .301
-4.000	.342	.351	.353	.363	.293	.215	.314		5 .335
-3.500	.345	.346	.349	.340	.255	.207	.314		6 .395
-3.000	.336	.339	.339	.306	.223	.207	.312		7 .347
-2.750	.336	.345	.327	.283	.216	.216	.312		8 .335
-2.500	.331	.328	.312	.266	.207	.220	.316		9 .336
-2.250	.323	.316	.295	.247	.198	.229	.317	10	-.338
-2.000	.300	.299	.273	.231	.200	.239	.321	11	-.333
-1.750	.292	.279	.253	.222	.202	.260	.323	12	-.403
-1.500	.272	.257	.232	.215	.208	.277	.328	13	.372
-1.250	.227	.238	.214	.209	.221	.301	.328	14	.373
-1.000	.232	.222	.216	.214	.237	.336	.326	15	.388
-750	.219	.215	.221	.230	.274	.373	.322	16	-.412
-625	.224	.224	.229	.245	.294	.395	.321	17	.430
-500	.235	.233	.251	.272	.328	.421	.325	18	.395
-375	.256	.265	.282	.309	.374	.439	.339	19	-.313
-250	.313	.318	.334	.365	.417	.437	.368	20	-.313
-125	.410		.424		.434		.425	21	-.309
.000	.408	.413	.415	.412	.414	.413	.431	22	-.314
$\Delta = 45^\circ$									
-6.000	.000	-.003	.004	.006	.292	.345			1 .379
-5.500	.013	.000	.003	.178	.342	.268			2 .357
-5.000	.217	.140	.217	.308	.345	.215			3 .321
-4.500	.281	.281	.310	.322	.332	.204			4 .318
-4.000	.295	.308	.326	.327	.309	.211	.274		5 .350
-3.500	.299	.314	.325	.320	.239	.229	.263		6 .415
-3.000	.307	.315	.273	.283	.202	.270	.245		7 .366
-2.750	.301	.318	.299	.257	.187	.301	.249		8 .333
-2.500	.289	.294	.278	.230	.185	.223	.171		9 .337
-2.250	.276	.273	.247	.204	.180	.252	.267		10 .398
-2.000	.236	.241	.218	.184	.180	.376	.255		11 .333
-1.750	.212	.205	.189	.171	.194	.399	.238		12 .253
-1.500	.173	.172	.158	.163	.222	.415	.214		13 .204
-1.250	.128	.148	.148	.174	.256	.421	.178		14 .182
-1.000	.139	.145	.171	.209	.300	.431	.150		15 .192
-750	.161	.177	.206	.263	.355	.440	.134		16 .233
-625	.193	.206	.238	.297	.375	.437	.133		17 .277
-500	.234	.240	.283	.334	.392	.438	.143		18 .299
-375	.289	.304	.333	.370	.408	.430	.167		19 .300
-250	.349	.352	.374	.397	.415	.421	.215		20 .275
-125	.402		.406		.407		.280		21 .223
.000	.396	.399	.401	.400	.397	.396	.269		22 .226
$\Delta = 45^\circ$									
-6.000	.000	-.003	.004	.006	.292	.345			1 .379
-5.500	.013	.000	.003	.178	.342	.268			2 .357
-5.000	.217	.140	.217	.308	.345	.215			3 .321
-4.500	.281	.281	.310	.322	.332	.204			4 .318
-4.000	.295	.308	.326	.327	.309	.211	.274		5 .350
-3.500	.299	.314	.325	.320	.239	.229	.263		6 .415
-3.000	.307	.315	.273	.283	.202	.270	.245		7 .366
-2.750	.301	.318	.299	.257	.187	.301	.249		8 .333
-2.500	.289	.294	.278	.230	.185	.223	.171		9 .337
-2.250	.276	.273	.247	.204	.180	.252	.267		10 .398
-2.000	.236	.241	.218	.184	.180	.376	.255		11 .333
-1.750	.212	.205	.189	.171	.194	.399	.238		12 .253
-1.500	.173	.172	.158	.163	.222	.415	.214		13 .204
-1.250	.128	.148	.148	.174	.256	.421	.178		14 .182
-1.000	.139	.145	.171	.209	.300	.431	.150		15 .192
-750	.161	.177	.206	.263	.355	.440	.134		16 .233
-625	.193	.206	.238	.297	.375	.437	.133		17 .277
-500	.234	.240	.283	.334	.392	.438	.143		18 .299
-375	.289	.304	.333	.370	.408	.430	.167		19 .300
-250	.349	.352	.374	.397	.415	.421	.215		20 .275
-125	.402		.406		.407		.280		21 .223
.000	.396	.399	.401	.400	.397	.396	.269		22 .226

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Table 11 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 6 M = 1.61 R = 0.30 x 10⁶

x, in.	Plate							Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = 60^\circ$								
-6.000	-0.009	0.000	0.005	0.006	0.013	0.288		1 346
-5.500	.012	0.000	0.005	0.030	0.256	0.181		2 349
-4.500	.117	0.059	0.086	0.207	0.269	0.144		3 352
-4.000	.196	0.182	0.213	0.243	0.260	0.163		4 354
-3.500	.217	0.221	0.249	0.248	0.222	0.236		5 346
-3.000	.224	0.241	0.204	0.243	0.147	0.350		6 322
-2.750	.233	0.254	0.248	0.226	0.136	0.392		7 072
-2.500	.232	0.243	0.240	0.191	0.146	0.407		8 306
-2.250	.234	0.236	0.220	0.145	0.164	0.414		9 313
-2.000	.212	0.218	0.181	0.132	0.203	0.409		10 319
-1.750	.177	0.170	0.134	0.144	0.267	0.402		11 338
-1.500	.132	0.132	0.131	0.176	0.336	0.397		12 260
-1.250	.099	0.146	0.163	0.253	0.367	0.391		13 252
-1.000	.176	0.205	0.251	0.330	0.376	0.388		14 267
-0.750	.274	0.298	0.329	0.360	0.381	0.381		15 280
-0.625	.315	0.331	0.350	0.366	0.375	0.376		16 291
-0.500	.335	0.324	0.356	0.363	0.369	0.372		17 291
-0.375	.342	0.351	0.358	0.361	0.367	0.365		18 263
-0.250	.342	0.350	0.350	0.361	0.364	0.363		19 241
-0.125	.350		0.355		0.356			20 219
.000	.358		0.361		0.363			21 226
+2.50	-0.298	-0.286	-0.283	-0.281				-0.259
+3.75	-0.299	-0.293	-0.282	-0.282	-0.276			-0.269
+5.00	-0.301	-0.287	-0.288	-0.282	-0.273			-0.258
+7.50	-0.321	-0.278	-0.275	-0.272	-0.269	-0.271		-0.269
1.000	-0.386	-0.285	-0.273	-0.267	-0.263	-0.263		-0.313
1.250	-0.423	-0.356	-0.319	-0.281	-0.258	-0.254		-0.321
1.500	-0.406	-0.403	-0.345	-0.330	-0.262	-0.243		-0.287
1.750	-0.276	-0.376	-0.386	-0.354	-0.231	-0.226		-0.288
2.000	-0.231	-0.317	-0.365	-0.319	-0.236	-0.197		-0.339
2.250	-0.109	-0.240	-0.356	-0.311	-0.295	-0.188		-0.328
2.500	-0.019	-0.160	-0.294	-0.348	-0.291	-0.155		-0.290
2.750	.028	-0.096	-0.231	-0.341	-0.276	-0.185		-0.227
3.000	.021	-0.055	-0.161	-0.321	-0.272	-0.267		-0.135
3.500	.004	-0.019	-0.040	-0.234	-0.289	-0.263		
4.000	-0.008	-0.006	-0.015	-0.154	-0.317	-0.319		
4.500	-0.016	-0.002	-0.037	-0.054	-0.322	-0.308		
5.000	-0.020	-0.009	-0.045	-0.028	-0.317	-0.263		
5.500	-0.056	-0.003	-0.045	-0.076	-0.300	-0.246		
6.000	-0.004	-0.003	-0.045	-0.087	-0.280	-0.243		
	$\Delta = 75^\circ$							
-6.000	.008	.002	.009	.001	.009	.118		1 108
-5.500	.011	.002	.007	.004	.019	.104		2 108
-5.000	.042	.010	.003	.005	.092	.172		3 111
-4.500	.072	.044	.038	.067	.144	.138		4 100
-4.000	.083	.086	.093	.111	.137	.120	.067	5 091
-3.500	.077	.091	.105	.111	.123	.111	.066	6 071
-3.000	.070	.086	.098	.099	.109	.108	.066	7 107
-2.750	.071	.098	.091	.094	.099	.108	.068	8 158
-2.500	.070	.085	.090	.089	.091	.105	.069	9 177
-2.250	.085	.088	.086	.089	.079	.106	.071	10 210
-2.000	.073	.083	.087	.086	.077	.105	.072	11 260
-1.750	.085	.087	.088	.087	.083	.109	.072	12 083
-1.500	.084	.086	.078	.072	.093	.111	.072	13 086
-1.250	.059	.089	.073	.084	.104	.114	.074	14 089
-1.000	.071	.076	.082	.096	.111	.117	.073	15 091
-0.750	.086	.089	.094	.094	.106	.116	.063	16 088
-0.625	.075	.105	.097	.107	.119	.118	.063	17 074
-0.500	.091	.101	.104	.107	.115	.116	.068	18 033
-0.45	.091	.107	.107	.109	.115	.111	.077	19 -225
-0.250	.109	.107	.107	.113	.116	.112	.084	20 -164
-0.125	.110		.112		.110		.088	21 -052
.000	.118	-0.357	.117	.116	.119	.119	.087	22 -073
+2.50	-0.158	-0.150	-0.143	-0.135				-0.219
+3.75	-0.151	-0.205	-0.129	-0.132	-0.119			-0.212
+5.00	-0.173	-0.157	-0.144	-0.125	-0.111			-0.187
+7.50	-0.193	-0.247	-0.220	-0.135	-0.092	-0.086		-0.178
1.000	-0.139	-0.191	-0.272	-0.176	-0.080	-0.063		-0.146
1.250	-0.015	-0.328	-0.235	-0.220	-0.048	-0.034		-0.091
1.500	.029	-0.058	-0.180	-0.242	-0.019	-0.006		-0.043
1.750	.053	-0.010	-0.138	-0.187	.009	.024		-0.005
2.000	-0.066	.009	-0.098	-0.140	.026	.023		.045
2.250	-0.004	.015	-0.078	-0.090	.002	.006		.074
2.500	.073	.019	-0.052	-0.058	-0.020	.000		.069
2.750	.050	.021	-0.046	-0.027	-0.019	-0.029		.047
3.000	.029	-0.036	-0.007	-0.002	-0.141	.037		
3.500	-0.002	.014	-0.026	.046	.027	.098		
4.000	.015	-0.007	-0.020	.037	.048	.087		
4.500	.026	-0.015	-0.016	.039	.024	.196		
5.000	.017	-0.049	-0.016	.040	.023	.201		
5.500	-0.033	-0.002	-0.010	.041	.020	.194		
6.000	.007	.015	-0.007	.043	.027	.179		

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Table 12
Plate and Spoiler Pressure Coefficients
Configuration 7 M= 1.61 R= 0.30 X 10⁶

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 00^\circ$									
-6,000	.007	.007	.004	.126	.357	.283		1	.554
-5,500	.005	.007	.007	.321	.375	.290		2	.481
-5,000	.006	.011	.228	.367	.386	.297		3	.464
-4,500	.219	.272	.351	.388	.399	.313		4	.498
-4,000	.355	.366	.383	.396	.409	.328	.352	5	.570
-3,500	.387	.393	.398	.402	.408	.336	.387	6	.685
-3,000	.400	.405	.407	.411	.404	.349	.400	7	.550
-2,750	.405	.412	.412	.412	.399	.353	.403	8	.353
-2,500	.410	.408	.415	.413	.391	.361	.406	9	.352
-2,250	.419	.410	.413	.406	.383	.372	.410	10	.354
-2,000	.417	.414	.413	.399	.376	.384	.411	11	.351
-1,750	.418	.412	.407	.393	.373	.402	.409	12	.553
-1,500	.407	.403	.395	.379	.376	.426	.400	13	.477
-1,250	.377	.389	.382	.371	.387	.453	.385	14	.458
-1,000	.378	.373	.374	.378	.403	.492	.368	15	.493
-.750	.373	.371	.381	.394	.438	.543	.363	16	.561
-.625	.387	.384	.393	.413	.467	.572	.372	17	.668
-.500	.438	.403	.417	.442	.500	.598	.389	18	.736
-.375	.443	.437	.452	.487	.547	.626	.426	19	.392
-.250	.449	.491	.512	.548	.607	.630	.493	20	.353
-.125	.593		.608		.628		.595	21	.354
.000	.602	.597	.599	.600	.604	.603	.600	22	.352
$\Delta = 15^\circ$									
-6,000	.000	.005	.008	.062	.343	.304		1	.496
-5,500	.000	.001	.017	.310	.372	.279		2	.438
-5,000	.015	.040	.261	.363	.385	.242		3	.425
-4,500	.259	.290	.358	.391	.390	.247		4	.455
-4,000	.341	.352	.381	.394	.380	.265	.355	5	.505
-3,500	.364	.370	.390	.396	.361	.285	.377	6	.589
-3,000	.367	.375	.386	.392	.349	.307	.387	7	.406
-2,750	.372	.384	.390	.387	.348	.317	.391	8	.347
-2,500	.375	.379	.390	.381	.346	.327	.393	9	.351
-2,250	.386	.382	.390	.377	.346	.333	.395	10	.352
-2,000	.377	.382	.384	.369	.351	.342	.397	11	.347
-1,750	.382	.382	.378	.373	.352	.357	.397	12	.518
-1,500	.379	.377	.374	.368	.352	.368	.387	13	.450
-1,250	.350	.374	.372	.353	.352	.383	.367	14	.432
-1,000	.367	.366	.362	.349	.353	.409	.351	15	.459
-.750	.347	.349	.351	.351	.371	.447	.349	16	.526
-.625	.347	.348	.352	.362	.395	.473	.355	17	.627
-.500	.356	.356	.369	.381	.423	.500	.372	18	.683
-.375	.379	.385	.392	.419	.463	.530	.408	19	.339
-.250	.434	.439	.452	.478	.523	.545	.465	20	.340
-.125	.534		.540		.554		.556	21	.342
.000	.541	.542	.543	.544	.547	.546	.556	22	.340
$\Delta = 15^\circ$									
-6,000	.000	.005	.008	.062	.343	.304		1	.496
-5,500	.000	.001	.017	.310	.372	.279		2	.438
-5,000	.015	.040	.261	.363	.385	.242		3	.425
-4,500	.259	.290	.358	.391	.390	.247		4	.455
-4,000	.341	.352	.381	.394	.380	.265	.355	5	.505
-3,500	.364	.370	.390	.396	.361	.285	.377	6	.589
-3,000	.367	.375	.386	.392	.349	.307	.387	7	.406
-2,750	.372	.384	.390	.387	.348	.317	.391	8	.347
-2,500	.375	.379	.390	.381	.346	.327	.393	9	.351
-2,250	.386	.382	.390	.377	.346	.333	.395	10	.352
-2,000	.377	.382	.384	.369	.351	.342	.397	11	.347
-1,750	.382	.382	.378	.373	.352	.357	.397	12	.518
-1,500	.379	.377	.374	.368	.352	.368	.387	13	.450
-1,250	.350	.374	.372	.353	.352	.383	.367	14	.432
-1,000	.367	.366	.362	.349	.353	.409	.351	15	.459
-.750	.347	.349	.351	.351	.371	.447	.349	16	.526
-.625	.347	.348	.352	.362	.395	.473	.355	17	.627
-.500	.356	.356	.369	.381	.423	.500	.372	18	.683
-.375	.379	.385	.392	.419	.463	.530	.408	19	.339
-.250	.434	.439	.452	.478	.523	.545	.465	20	.340
-.125	.534		.540		.554		.556	21	.342
.000	.541	.542	.543	.544	.547	.546	.556	22	.340

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Table 12 Continued
Plate and Spoiler Pressure Coefficients
Configuration 7 $M = 1.61$ $R = 0.30 \times 10^6$

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice	No.
$\Delta = 30^\circ$									
-6.000	.001	.000	.006	.005	.191	.322		1	.421
-5.500	.002	-.001	.006	.102	.352	.345		2	.341
-5.000	.201	.127	.203	.325	.378	.266		3	.302
-4.500	.312	.309	.340	.371	.389	.211		4	.319
-4.000	.339	.347	.364	.378	.361	.212	.322	5	.370
-3.500	.344	.351	.367	.377	.293	.215	.319	6	.462
-3.000	.342	.353	.362	.337	.236	.228	.315	7	.315
-2.750	.346	.359	.354	.310	.220	.241	.315	8	-.310
-2.500	.339	.346	.334	.273	.213	.260	.315	9	-.335
-2.250	.336	.328	.305	.243	.204	.281	.314	10	-.352
-2.000	.306	.300	.274	.221	.202	.308	.314	11	-.328
-1.750	.283	.271	.241	.208	.207	.340	.307	12	.375
-1.500	.252	.237	.216	.197	.214	.364	.301	13	.334
-1.250	.200	.214	.203	.195	.233	.397	.292	14	.327
-1.000	.200	.198	.198	.203	.260	.435	.282	15	.344
-0.750	.198	.194	.208	.235	.315	.476	.273	16	.372
-0.625	.210	.209	.232	.267	.350	.492	.273	17	.401
-0.500	.205	.236	.263	.305	.392	.512	.277	18	.352
-0.375	.276	.287	.311	.363	.447	.519	.296	19	-.306
-0.250	.352	.360	.392	.437	.497	.499	.335	20	-.304
-0.125	.471		.489		.489		.407	21	-.302
.000	.460	.457	.462	.464	.465	.462	.405	22	-.304
$\Delta = 45^\circ$									
-6.000	-.002	-.004	-.002	.001	.011	.137		1	.480
-5.500	.000	-.005	-.003	.005	.036	.337		2	.464
-5.000	.077	-.005	.000	.036	.315	.361		3	.438
-4.500	.257	.200	.213	.295	.360	.225		4	.441
-4.000	.294	.293	.307	.334	.364	.191	.287	5	.487
-3.500	.302	.313	.326	.341	.303	.193	.278	6	.560
-3.000	.301	.313	.324	.321	.215	.240	.276	7	.200
-2.750	.303	.322	.323	.298	.191	.295	.276	8	-.381
-2.500	.299	.309	.305	.247	.183	.352	.271	9	-.385
-2.250	.288	.298	.266	.206	.182	.417	.257	10	-.390
-2.000	.253	.253	.227	.193	.193	.468	.239	11	-.385
-1.750	.212	.212	.190	.177	.217	.512	.216	12	.282
-1.500	.175	.176	.171	.178	.258	.537	.187	13	.236
-1.250	.122	.163	.167	.197	.326	.552	.157	14	.207
-1.000	.156	.174	.188	.253	.399	.561	.137	15	.216
-0.750	.201	.223	.258	.337	.472	.553	.129	16	.256
-0.625	.251	.286	.316	.393	.492	.543	.141	17	.315
-0.500	.289	.330	.379	.432	.502	.535	.160	18	.317
-0.375	.398	.415	.431	.472	.512	.525	.192	19	-.307
-0.250	.457	.456	.474	.492	.512	.513	.251	20	-.286
-0.125	.491		.497		.504		.315	21	-.229
.000	.481	.480	.484	.483	.490	.487	.299	22	-.225
$\Delta = 45^\circ$									
-6.000	-.002	-.004	-.002	.001	.011	.137		1	.480
-5.500	.000	-.005	-.003	.005	.036	.337		2	.464
-5.000	.077	-.005	.000	.036	.315	.361		3	.438
-4.500	.257	.200	.213	.295	.360	.225		4	.441
-4.000	.294	.293	.307	.334	.364	.191	.287	5	.487
-3.500	.302	.313	.326	.341	.303	.193	.278	6	.560
-3.000	.301	.313	.324	.321	.215	.240	.276	7	.200
-2.750	.303	.322	.323	.298	.191	.295	.276	8	-.381
-2.500	.299	.309	.305	.247	.183	.352	.271	9	-.385
-2.250	.288	.298	.266	.206	.182	.417	.257	10	-.390
-2.000	.253	.253	.227	.193	.193	.468	.239	11	-.385
-1.750	.212	.212	.190	.177	.217	.512	.216	12	.282
-1.500	.175	.176	.171	.178	.258	.537	.187	13	.236
-1.250	.122	.163	.167	.197	.326	.552	.157	14	.207
-1.000	.156	.174	.188	.253	.399	.561	.137	15	.216
-0.750	.201	.223	.258	.337	.472	.553	.129	16	.256
-0.625	.251	.286	.316	.393	.492	.543	.141	17	.315
-0.500	.289	.330	.379	.432	.502	.535	.160	18	.317
-0.375	.398	.415	.431	.472	.512	.525	.192	19	-.307
-0.250	.457	.456	.474	.492	.512	.513	.251	20	-.286
-0.125	.491		.497		.504		.315	21	-.229
.000	.481	.480	.484	.483	.490	.487	.299	22	-.225

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Table 12 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 7 $M = 1.61$ $R = 0.30 \times 10^6$

x , in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 60^\circ$									
-6.000	-002	-006	-008	-002	.011	.005		1	.378
-5.500	-004	-005	-009	-002	.013	.024		2	.378
-5.000	-004	-007	-008	-007	.010	.297		3	.379
-4.500	.033	-002	-005	.007	.203	.323		4	.378
-4.000	.157	.095	.090	.181	.285	.202	.219	5	.369
-3.500	.212	.207	.217	.250	.285	.175	.228	6	.345
-3.000	.229	.235	.241	.256	.242	.245	.230	7	.303
-2.750	.231	.246	.246	.256	.186	.308	.225	8	.339
-2.500	.230	.236	.241	.242	.161	.373	.227	9	.360
-2.250	.236	.238	.238	.206	.158	.421	.222	10	.352
-2.000	.220	.228	.215	.154	.178	.450	.213	11	.389
-1.750	.196	.193	.162	.149	.230	.457	.193	12	.284
-1.500	.149	.140	.139	.162	.303	.449	.158	13	.286
-1.250	.112	.132	.154	.213	.378	.440	.133	14	.294
-1.000	.173	.179	.225	.315	.411	.433	.145	15	.306
-0.750	.268	.283	.329	.383	.416	.420	.188	16	.316
-0.625	.315	.345	.364	.389	.409	.413	.217	17	.310
-0.500	.345	.352	.384	.392	.401	.404	.245	18	.180
-0.375	.360	.392	.384	.386	.399	.397	.269	19	.302
-0.250	.378	.372	.383	.386	.392	.390	.284	20	.282
-0.125	.383		.383		.387		.292	21	.255
0.000	.383	.377	.387	.381	.386	.387	.290	22	.253
$\Delta = 75^\circ$									
-6.000	.005	-004	.000	.001	.006	.006		1	.103
-5.500	.003	-003	.001	.000	.008	.006		2	.105
-5.000	.006	-005	.001	-004	.006	.080		3	.106
-4.500	.026	-001	-001	.005	.024	.200		4	.101
-4.000	.071	.030	.019	.037	.129	.197	.080	5	.093
-3.500	.091	.084	.089	.115	.159	.170	.078	6	.071
-3.000	.090	.102	.116	.130	.148	.143	.077	7	.205
-2.750	.090	.111	.117	.124	.139	.137	.076	8	.120
-2.500	.091	.096	.114	.120	.130	.131	.077	9	.222
-2.250	.100	.097	.107	.112	.117	.130	.075	10	.200
-2.000	.088	.094	.103	.109	.105	.124	.071	11	.264
-1.750	.088	.091	.098	.106	.099	.123	.074	12	.082
-1.500	.090	.090	.095	.096	.101	.124	.074	13	.086
-1.250	.057	.084	.085	.085	.105	.125	.073	14	.092
-1.000	.075	.076	.087	.094	.112	.124	.067	15	.093
-0.750	.082	.083	.094	.099	.117	.127	.060	16	.093
-0.625	.077	.098	.097	.101	.122	.124	.063	17	.084
-0.500	.079	.103	.104	.106	.117	.122	.070	18	.037
-0.375	.093	.117	.105	.112	.119	.122	.080	19	.274
-0.250	.111	.101	.109	.117	.116	.117	.087	20	.302
-0.125	.111		.114		.114		.092	21	.121
0.000	.117	.115	.120	.116	.119	.118	.090	22	.069
$\Delta = 75^\circ$									
-6.000	-150	-142	-132	-127			.277		
-5.500	-179	-174	-146	-131	-117		.265		
-5.000	-278	-240	-192	-145	-101		.263		
-4.500	-250	-291	-305	-192	-046	-010	.246		
-4.000	-164	-206	-280	-246	-009	.054	.156		
-3.500	-069	-152	-222	-237	.031	.079	.068		
-3.000	-097	-171	-200	-024	.068	.016			
-2.750	-080	-055	-136	-123	.023	.046	.032		
-2.500	-037	-025	-099	-042	.022	.049	.066		
-2.250	-025	-010	-095	-003	.040	.049	.070		
-2.000	-056	-005	-069	.017	.043	.005	.073		
-1.750	-056	-007	-065	.029	.077	-029	.066		
-1.500	-047	-002	-057	.034	.094	-159	.053		
-1.250	-028	-003	-042	.042	.067	-209			
-1.000	-009	-008	-039	.046	.047	-132			
-0.750	-006	-014	-036	.045	.027	-176			
-0.500	-005	-014	-024	.047	.006	-193			
-0.375	-037	-013	-019	.046	.006	-171			
0.000	-062	-003	-011	.043	.001	-097			

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Table 13
Plate and Spoiler Pressure Coefficients
Configuration 8 M = 1.61 R = 0.14 x 10⁶

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6.000	-0.016	-0.023	-0.019	-0.019	0.251	0.223		1	0.519
-5.000	-0.021	-0.027	-0.023	-0.023	0.298	0.223		2	0.454
-4.000	-0.025	-0.025	-0.051	0.276	0.312	0.213		3	0.424
-3.000	-0.078	-0.146	-0.294	0.330	0.318	0.195		4	0.446
-2.000	-0.311	-0.313	-0.344	0.338	0.334	0.179	0.316	5	0.515
-1.000	-0.352	-0.350	-0.366	0.354	0.344	0.201	0.362	6	0.635
-0.000	-0.360	-0.364	-0.366	0.359	0.340	0.241	0.370	7	0.505
+2.750	-0.356	-0.404	-0.377	0.359	0.338	0.267	0.376	8	-0.348
+2.500	-0.364	-0.369	-0.377	0.354	0.336	0.283	0.380	9	-0.352
+2.250	-0.399	-0.379	-0.375	0.351	0.324	0.302	0.382	10	-0.352
+2.000	-0.369	-0.369	-0.377	0.346	0.324	0.316	0.382	11	-0.352
+1.750	-0.369	-0.371	-0.371	0.346	0.318	0.346	0.382	12	0.513
+1.500	-0.360	-0.360	-0.352	0.325	0.314	0.370	0.372	13	0.442
+1.250	-0.284	-0.344	-0.334	0.309	0.328	0.396	0.358	14	0.420
+1.000	-0.329	-0.325	-0.311	0.314	0.342	0.436	0.338	15	0.482
+0.750	-0.321	-0.319	-0.311	0.335	0.374	0.467	0.300	16	0.529
+0.625	-0.329	-0.329	-0.325	0.354	0.410	0.521	0.334	17	0.649
+0.500	-0.354	-0.358	-0.349	0.394	0.450	0.547	0.350	18	0.724
+0.375	-0.389	-0.391	-0.389	0.443	0.499	0.573	0.388	19	-0.350
+0.250	-0.459	-0.459	-0.469	0.523	0.551	0.575	0.454	20	-0.348
+0.125	-0.556	-0.556	-0.555	0.573	0.595	0.595	0.521	21	-0.348
-0.000	-0.562	-0.568	-0.561	0.569	0.569	0.569	0.597	22	-0.348
$\Delta = 15^\circ$									
-6.000	-0.039	-0.023	-0.033	-0.030	0.016	0.207		1	0.402
-5.000	-0.039	-0.031	-0.041	-0.019	0.233	0.235		2	0.354
-4.000	-0.025	-0.029	-0.014	0.212	0.296	0.235		3	0.334
-3.000	-0.177	-0.189	-0.272	0.325	0.314	0.223		4	0.346
-2.000	-0.303	-0.321	-0.336	0.338	0.328	0.139	0.312	5	0.378
-1.000	-0.354	-0.362	-0.378	0.359	0.346	0.348	0.356	6	0.444
-0.000	-0.358	-0.362	-0.362	0.354	0.346	0.365	0.358	7	0.263
+2.750	-0.362	-0.369	-0.368	0.354	0.348	0.354	0.350	8	-0.362
+2.500	-0.350	-0.354	-0.365	0.348	0.348	0.352	0.356	9	-0.362
+2.250	-0.331	-0.329	-0.351	0.348	0.348	0.354	0.356	10	0.364
+2.000	-0.105	-0.311	-0.338	0.336	0.334	0.354	0.292	11	0.360
+2.250	-0.233	-0.249	-0.290	0.304	0.344	0.354	0.239	12	0.478
+2.500	-0.214	-0.224	-0.252	0.285	0.336	0.358	0.209	13	0.428
+2.750	-0.191	-0.202	-0.241	0.253	0.320	0.354	0.181	14	0.408
+3.000	-0.179	-0.181	-0.223	0.233	0.304	0.358	0.163	15	0.408
+3.500	-0.136	-0.159	-0.161	0.197	0.283	0.358		16	0.408
+4.000	-0.103	-0.121	-0.142	0.167	0.257	0.354		17	0.577
+4.500	-0.093	-0.109	-0.126	0.143	0.229	0.344		18	0.617
+5.000	-0.076	-0.097	-0.105	0.119	0.199	0.340		19	-0.352
+5.500	-0.082	-0.080	-0.094	0.097	0.165	0.320		20	-0.350
+6.000	-0.062	-0.064	-0.075	0.074	0.131	0.285		21	-0.354
$\Delta = 15^\circ$									
-6.000	-0.039	-0.023	-0.033	-0.030	0.016	0.207		1	0.402
-5.000	-0.039	-0.031	-0.041	-0.019	0.233	0.235		2	0.354
-4.000	-0.025	-0.029	-0.014	0.212	0.296	0.235		3	0.334
-3.000	-0.177	-0.189	-0.272	0.325	0.314	0.223		4	0.346
-2.000	-0.303	-0.321	-0.336	0.338	0.328	0.139	0.312	5	0.378
-1.000	-0.354	-0.362	-0.378	0.359	0.346	0.348	0.356	6	0.444
-0.000	-0.358	-0.362	-0.362	0.354	0.343	0.365	0.352	7	0.263
+2.750	-0.362	-0.369	-0.368	0.358	0.355	0.205	0.350	8	-0.362
+2.500	-0.350	-0.354	-0.364	0.348	0.348	0.237	0.356	9	-0.362
+2.250	-0.336	-0.350	-0.334	0.287	0.239	0.283	0.358	10	0.364
+2.000	-0.329	-0.329	-0.323	0.274	0.245	0.304	0.360	11	0.360
+2.250	-0.323	-0.331	-0.303	0.279	0.249	0.336	0.364	12	0.478
+2.500	-0.317	-0.311	-0.294	0.268	0.263	0.356	0.358	13	0.428
+2.750	-0.268	-0.292	-0.284	0.263	0.281	0.380	0.338	14	0.408
+3.000	-0.305	-0.299	-0.276	0.274	0.296	0.400	0.318	15	0.420
+3.500	-0.288	-0.284	-0.274	0.295	0.330	0.430	0.312	16	0.485
+4.000	-0.268	-0.266	-0.282	0.306	0.348	0.438	0.322	17	0.577
+4.500	-0.292	-0.266	-0.298	0.327	0.376	0.460	0.342	18	0.617
+5.000	-0.311	-0.319	-0.309	0.362	0.404	0.468	0.378	19	-0.352
+5.500	-0.354	-0.354	-0.354	0.421	0.446	0.464	0.434	20	-0.350
+6.000	-0.457	-0.453	-0.448	0.461	0.468	0.466	0.505	21	-0.354
$\Delta = 15^\circ$									
-6.000	-0.373	-0.379	-0.378	-0.357			0.358		
-5.000	-0.364	-0.375	-0.386	-0.368	-0.354		0.354		
-4.000	-0.371	-0.375	-0.384	-0.362	-0.356		0.358		
-3.000	-0.375	-0.383	-0.384	-0.357	-0.358	-0.360	0.362		
-2.000	-0.369	-0.272	-0.386	-0.365	-0.360	-0.360	0.360		
-1.000	-0.369	-0.327	-0.373	-0.360	-0.352	-0.356	0.352		
-0.000	-0.329	-0.340	-0.362	-0.352	-0.358	-0.356	0.352		
+1.750	-0.307	-0.313	-0.341	-0.344	-0.362	-0.352	0.308		
+2.000	-0.261	-0.288	-0.239	-0.326	-0.356	-0.354	0.287		
+2.250	-0.222	-0.259	-0.298	-0.316	-0.352	-0.354	0.257		
+2.500	-0.196	-0.233	-0.260	-0.300	-0.344	-0.348	0.239		
+2.750	-0.173	-0.210	-0.249	-0.281	-0.342	-0.354	0.219		
+3.000	-0.154	-0.185	-0.233	-0.263	-0.332	-0.360	0.193		
+3.500	-0.113	-0.156	-0.174	-0.231	-0.302	-0.354			
+4.000	-0.093	-0.121	-0.158	-0.201	-0.275	-0.350			
+4.500	-0.074	-0.115	-0.145	-0.173	-0.247	-0.348			
+5.000	-0.062	-0.091	-0.115	-0.143	-0.223	-0.342			
+5.500	-0.068	-0.074	-0.105	-0.129	-0.199	-0.332			
+6.000	-0.047	-0.064	-0.089	-0.109	-0.175	-0.300			

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Table 13 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.14 \times 10^6$

x, in.	Row 0	Row 1	Row 3	Plate					Orifice No.	Spoiler
				Row 4	Row 6	Row 7	Row 9			
$\Delta = 30^\circ$										
-6.000	-0.049	-0.039	-0.029	-0.040	-0.022	-0.020	-0.020	1	4.497	
-5.500	-0.047	-0.037	-0.031	-0.043	-0.016	-0.074	-0.074	2	4.440	
-5.000	-0.002	-0.037	-0.039	-0.035	-0.121	-0.241	-0.241	3	3.380	
-4.500	+0.231	+0.140	+0.132	+0.225	+0.298	+0.269	+0.269	4	3.378	
-4.000	+0.305	+0.207	+0.311	+0.317	+0.334	+0.225	+0.302	5	4.444	
-3.500	+0.311	+0.327	+0.346	+0.333	+0.320	+0.137	+0.298	6	5.591	
-3.000	+0.309	+0.334	+0.342	+0.317	+0.213	+0.173	+0.294	7	3.354	
-2.750	+0.311	+0.369	+0.336	+0.284	+0.185	+0.189	+0.296	8	-0.382	
-2.500	+0.299	+0.321	+0.313	+0.233	+0.175	+0.209	+0.290	9	-0.400	
-2.250	+0.311	+0.305	+0.272	+0.188	+0.169	+0.271	+0.287	10	-0.404	
-2.000	+0.251	+0.251	+0.231	+0.161	+0.173	+0.350	+0.275	11	-0.398	
-1.750	+0.208	+0.212	+0.183	+0.156	+0.173	+0.448	+0.257	12	3.320	
-1.500	+0.171	+0.173	+0.163	+0.153	+0.189	+0.531	+0.241	13	2.271	
-1.250	+0.091	+0.152	+0.152	+0.148	+0.237	+0.603	+0.225	14	2.255	
-1.000	+0.140	+0.146	+0.145	+0.172	+0.316	+0.655	+0.205	15	2.273	
-0.750	+0.150	+0.169	+0.182	+0.252	+0.438	+0.655	+0.191	16	3.306	
-0.625	+0.173	+0.208	+0.236	+0.322	+0.499	+0.633	+0.187	17	3.354	
-0.500	+0.200	+0.292	+0.306	+0.402	+0.545	+0.609	+0.199	18	3.356	
-0.375	+0.344	+0.379	+0.394	+0.494	+0.573	+0.587	+0.223	19	-0.332	
-0.250	+0.449	+0.471	+0.502	+0.550	+0.579	+0.567	+0.275	20	-0.334	
-0.125	+0.546	+0.547	+0.547	+0.555	+0.555	+0.364	+0.21	21	-0.334	
+0.000	+0.513	+0.523	+0.518	+0.523	+0.525	+0.529	+0.354	22	-0.334	
$\Delta = 45^\circ$										
-6.000	-0.031	-0.037	-0.033	-0.035	-0.024	-0.028	-0.028	1	5.583	
-5.500	-0.041	-0.035	-0.041	-0.038	-0.020	-0.024	-0.024	2	5.581	
-5.000	-0.033	-0.041	-0.047	-0.038	-0.014	-0.010	-0.010	3	5.75	
-4.500	+0.047	+0.029	+0.029	+0.021	+0.012	+0.193	+0.193	4	5.599	
-4.000	+0.233	+0.130	+0.064	+0.115	+0.265	+0.308	+0.273	5	6.445	
-3.500	+0.284	+0.274	+0.272	+0.298	+0.332	+0.213	+0.271	6	6.684	
-3.000	+0.284	+0.307	+0.305	+0.319	+0.300	+0.145	+0.269	7	+0.020	
-2.750	+0.292	+0.340	+0.362	+0.317	+0.314	+0.213	+0.261	8	-0.422	
-2.500	+0.288	+0.294	+0.305	+0.282	+0.165	+0.209	+0.255	9	-0.432	
-2.250	+0.305	+0.292	+0.278	+0.207	+0.143	+0.302	+0.233	10	-0.434	
-2.000	+0.231	+0.245	+0.216	+0.148	+0.141	+0.426	+0.201	11	-0.428	
-2.250	+0.206	+0.202	+0.247	+0.279	+0.336	+0.336	+0.221			
-2.500	+0.191	+0.181	+0.199	+0.253	+0.326	+0.332	+0.201			
-2.750	+0.171	+0.167	+0.193	+0.235	+0.316	+0.328	+0.179			
-3.000	+0.165	+0.152	+0.180	+0.215	+0.298	+0.332	+0.159			
-3.500	+0.109	+0.142	+0.140	+0.181	+0.271	+0.328				
-4.000	+0.06	+0.109	+0.134	+0.159	+0.243	+0.326				
-4.500	+0.047	+0.091	+0.123	+0.133	+0.227	+0.322				
-5.000	+0.021	+0.056	+0.105	+0.115	+0.203	+0.310				
-5.500	+0.006	+0.004	+0.091	+0.103	+0.189	+0.302				
-6.000	+0.004	+0.031	+0.086	+0.097	+0.179	+0.289				

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Table 13 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.14 \times 10^6$

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 60^\circ$									
-6,000	-0.035	-0.043	-0.047	-0.038	-0.022	-0.028		1	.416
-5,500	-0.037	-0.047	-0.045	-0.038	-0.022	-0.028		2	.410
-5,000	-0.039	-0.047	-0.051	-0.046	-0.022	-0.026		3	.414
-4,500	-0.033	-0.043	-0.047	-0.030	-0.022	-0.016		4	.406
-4,000	-0.000	-0.041	-0.041	-0.030	-0.006	-0.131	+187	5	.396
-3,500	+109	+0.19	+0.10	+0.24	+193	+302	+205	6	.382
-3,000	+181	+163	+165	+207	+273	+229	+217	7	.163
-2,750	+200	+245	+210	+233	+275	+161	+213	8	.402
-2,500	+210	+214	+226	+239	+259	+195	+213	9	.430
-2,250	+241	+226	+222	+233	+203	+283	+205	10	.436
-2,000	+204	+214	+222	+223	+139	+362	+195	11	.440
-1,750	+210	+212	+206	+169	+145	+436	+175	12	.298
-1,500	+169	+169	+136	+121	+207	+478	+141	13	.294
-1,250	+056	+113	+109	+148	+294	+493	+113	14	.302
-1,000	+107	+132	+156	+233	+398	+470	+123	15	.318
-0.750	+179	+237	+271	+359	+446	+460	+167	16	.324
-0.625	+255	+331	+338	+389	+440	+448	+215	17	.316
-0.500	+352	+360	+389	+410	+436	+442	+247	18	.229
-0.375	+377	+418	+392	+410	+430	+432	+269	19	.372
-0.250	+414	+408	+402	+421	+428	+426	+294	20	.342
-0.125	+414	+405	+405	+422	+422	+422	+298	21	.292
+0.000	+463	+467	+469	+467	+487	+480	+298	22	.289
+250	-0.410	-0.408	-0.394	-0.384			-0.370		
+375	-0.436	-0.443	-0.427	-0.410	-0.366		-0.366		
+500	-0.457	-0.461	-0.456	-0.440	-0.388		-0.340		
+750	-0.453	-0.467	-0.456	-0.448	-0.416	-0.366	-0.348		
1,000	-0.375	-0.303	-0.451	-0.461	-0.416	-0.316	-0.324		
1,250	-0.226	-0.344	-0.424	-0.426	-0.402	-0.296	-0.306		
1,500	-0.111	-0.224	-0.351	-0.418	-0.384	-0.298	-0.328		
1,750	-0.089	-0.119	-0.258	-0.390	-0.360	-0.302	-0.360		
2,000	-0.018	-0.072	-0.097	-0.348	-0.344	-0.314	-0.261		
2,250	-0.060	-0.075	-0.287	-0.332	-0.330	-0.330	-0.351		
2,500	-0.016	-0.043	-0.024	-0.215	-0.332	-0.360	-0.092		
2,750	-0.025	-0.035	-0.030	-0.143	-0.335	-0.352	-0.116		
3,000	-0.045	-0.035	-0.019	-0.062	-0.450	-0.400	-0.000		
3,500	-0.056	-0.051	-0.003	-0.020	-0.340	-0.328			
4,000	-0.084	-0.043	-0.019	-0.006	-0.285	-0.344			
4,500	-0.091	-0.045	-0.030	-0.010	-0.217	-0.350			
5,000	-0.078	-0.039	-0.024	-0.006	-0.113	-0.334			
5,500	-0.074	-0.031	-0.030	-0.002	-0.076	-0.324			
6,000	-0.074	-0.039	-0.024	-0.010	-0.060	-0.314			
$\Delta = 75^\circ$									
-6,000	-0.031	-0.033	-0.035	-0.040	-0.024	-0.028		1	.090
-5,500	-0.029	-0.037	-0.035	-0.038	-0.026	-0.028		2	.090
-5,000	-0.031	-0.039	-0.043	-0.051	-0.024	-0.034		3	.092
-4,500	-0.031	-0.033	-0.033	-0.032	-0.022	-0.030		4	.080
-4,000	-0.025	-0.035	-0.035	-0.038	-0.028	-0.020	.056	5	.066
-3,500	.014	-0.025	-0.035	-0.038	-0.004	-0.139	.050	6	.050
-3,000	.058	-0.033	.023	.040	.109	.193	.050	7	.306
-2,750	.062	.115	.056	.078	.135	.183	.046	8	.167
-2,500	.070	.080	.084	.107	.145	.161	.054	9	.225
-2,250	.115	.093	.105	.110	.133	.145	.048	10	.328
-2,000	.076	.089	.103	.107	.121	.133	.048	11	.370
-1,750	.086	.089	.095	.107	.105	.129	.048	12	.046
-1,500	.070	.074	.095	.097	.099	.125	.050	13	.070
-1,250	.039	.070	.084	.078	.097	.125	.050	14	.072
-1,000	.062	.072	.067	.075	.101	.119	.046	15	.082
-0.750	.045	.070	.072	.086	.109	.121	.038	16	.082
-0.625	.037	.093	.072	.091	.101	.113	.042	17	.068
-0.500	.062	.076	.080	.097	.105	.115	.048	18	.012
-0.375	.062	.115	.078	.099	.111	.109	.058	19	.233
-0.250	.097	.097	.086	.126	.109	.105	.056	20	.209
-0.125	.093	.083	.105				.074	21	.157
+0.000	.119	.156	.118	.123	.125	.127	.070	22	.096
+250	-0.161	-0.142	-0.142	-0.126			-0.257		
+375	-0.165	-0.166	-0.137	-0.105			-0.239		
+500	-0.179	-0.177	-0.188	-0.145	-0.107		-0.229		
+750	-0.138	-0.171	-0.166	-0.137	-0.097	-0.058	-0.239		
1,000	-0.105	-0.078	-0.150	-0.110	-0.086	-0.006	-0.161		
1,250	-0.144	-0.089	-0.129	-0.052	-0.078	.002	-0.062		
1,500	-0.134	-0.078	-0.105	-0.008	-0.070	.010	-0.026		
1,750	.016	-0.089	-0.110	.014	-0.058	.038	-0.018		
2,000	-0.091	-0.097	-0.048	.016	-0.038	.060	-0.008		
2,250	-0.080	-0.091	-0.086	.010	-0.018	.076	.002		
2,500	-0.093	-0.089	-0.059	.010	.000	.074	.000		
2,750	-0.089	-0.082	-0.067	.010	.022	.024	-0.002		
3,000	-0.095	-0.076	-0.072	.010	.030	-0.137	-0.010		
3,500	-0.086	-0.086	-0.048	.002	.008	.223			
4,000	-0.097	-0.072	-0.059	.004	-0.010	.177			
4,500	-0.101	-0.084	-0.064	.000	-0.018	.141			
5,000	-0.074	-0.078	-0.048	.004	-0.012	.143			
5,500	-0.064	-0.072	-0.051	.004	-0.010	.103			
6,000	-0.031	-0.070	-0.043	-0.002	-0.028	.076			

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Table 13 Continued
Plate and Spoiler Pressure Coefficients
Configuration 8 $M = 1.61$ $R = 0.14 \times 10^6$

x , in.	Plate							Spoiler Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = -15^\circ$								
-6.000	-0.043	-0.039	-0.029	0.161	0.256	0.173		1 +.452
-5.500	-0.037	-0.037	-0.027	0.252	0.269	0.167		2 +.402
-5.000	.008	.045	.237	.274	.275	.163		3 +.382
-4.500	.229	.253	.296	.311	.283	.155		4 +.414
-4.000	.288	.303	.317	.300	.300	.167	.324	.5 +.458
-3.500	.301	.319	.329	.319	.310	.203	.344	.6 +.395
-3.000	.305	.321	.329	.322	.314	.243	.340	.7 +.244
-2.750	.317	.371	.340	.327	.314	.261	.334	.8 +.398
-2.500	.317	.327	.342	.327	.310	.279	.338	.9 +.394
-2.250	.354	.338	.340	.327	.306	.290	.338	.10 +.366
-2.000	.321	.338	.346	.325	.298	.304	.330	.11 +.360
-1.750	.327	.340	.342	.333	.298	.320	.314	.12 +.424
-1.500	.321	.329	.334	.309	.302	.354	.298	.13 +.360
-1.250	.272	.325	.313	.290	.306	.378	.287	.14 +.344
-1.000	.311	.313	.303	.298	.330	.412	.271	.15 +.360
-.750	.296	.307	.300	.317	.362	.446	.271	.16 +.408
-.625	.301	.313	.306	.333	.384	.464	.275	.17 +.487
-.500	.315	.307	.327	.351	.406	.485	.287	.18 +.209
-.375	.334	.358	.349	.592	.444	.501	.318	.19 +.364
-.250	.391	.406	.408	.459	.487	.505	.380	.20 +.368
-.125	.478		.483		.503		.470	.21 +.368
.000	.474	.482	.467	.480	.482	.483	.466	.22 +.358
.250	.366	.352	.357	.349				.380
.375	.354	.364	.362	.359	.350			.368
.500	.373	.364	.370	.368	.348			.378
.750	.369	.364	.365	.359	.350	.354		.382
1.000	.369	.266	.270	.365	.352	.352		.364
1.250	.360	.354	.362	.352	.358	.354		.334
1.500	.350	.342	.359	.350	.360	.360		.306
1.750	.319	.343	.340	.340	.358	.360		.241
2.000	.303	.299	.236	.324	.356	.352		.241
2.250	.268	.274	.300	.308	.350	.352		.211
2.500	.247	.253	.252	.290	.340	.362		.183
2.750	.226	.224	.239	.265	.332	.360		.161
3.000	.208	.202	.223	.247	.316	.366		.143
3.500	.167	.154	.161	.197	.271	.366		
4.000	.134	.121	.140	.153	.233	.360		
4.500	.113	.097	.118	.121	.195	.350		
5.000	.093	.084	.089	.101	.161	.332		
5.500	.097	.068	.072	.094	.145	.320		
6.000	.072	.047	.064	.064	.038	.287		
$\Delta = -30^\circ$								
-6.000	-0.039	-0.002	0.204	0.233	0.213	0.096		1 +.318
-5.500	-0.037	.179	.243	.244	.207	.096		2 +.241
-5.000	.235	.261	.255	.231	.213	.099		3 +.241
-4.500	.280	.280	.268	.252	.213	.111		4 +.249
-4.000	.301	.290	.268	.239	.215	.141	.312	.5 +.283
-3.500	.292	.280	.264	.244	.229	.171	.328	.6 .354
-3.000	.280	.280	.261	.249	.235	.195	.332	.7 .177
-2.750	.284	.315	.268	.241	.235	.197	.328	.8 .324
-2.500	.278	.274	.259	.239	.231	.201	.312	.9 .324
-2.250	.305	.276	.257	.233	.229	.201	.290	.10 .324
-2.000	.253	.259	.247	.231	.227	.203	.351	.11 .308
-1.750	.247	.243	.235	.233	.213	.209	.211	.12 .557
-1.500	.220	.220	.214	.207	.201	.219	.183	.13 .499
-1.250	.142	.202	.200	.180	.182	.203	.163	.14 .444
-1.000	.175	.181	.177	.182	.182	.261	.153	.15 .450
-.750	.161	.163	.169	.168	.219	.302	.171	.16 .559
-.625	.167	.163	.156	.150	.233	.326	.203	.17 .734
-.500	.191	.159	.177	.267	.265	.346	.269	.18 .768
-.375	.206	.214	.212	.247	.312	.388	.392	.19 .410
-.250	.261	.266	.271	.333	.356	.370	.541	.20 .414
-.125	.362		.357		.376		.605	.21 .414
.000	.395	.387	.389	.386	.404	.396	.579	.22 .402
.250	.327	.329	.327	.317				.426
.375	.327	.342	.335	.327	.318			.412
.500	.346	.338	.346	.333	.326			.424
.750	.340	.348	.346	.335	.334			.424
1.000	.340	.251	.354	.359	.346	.332		.394
1.250	.325	.331	.343	.348	.358	.350		.352
1.500	.309	.311	.322	.338	.364	.362		.316
1.750	.105	.278	.298	.320	.348	.366		.289
2.000	.251	.249	.201	.298	.368	.374		.265
2.250	.212	.224	.241	.275	.358	.388		.241
2.500	.196	.198	.182	.242	.340	.386		.219
2.750	.177	.175	.180	.225	.318	.368		.201
3.000	.159	.152	.164	.226	.302	.392		.157
3.500	.121	.13	.123	.167	.285			
4.000	.099	.097	.134	.179	.257			
4.500	.082	.091	.091	.088	.292			
5.000	.072	.047	.048	.058	.030			
5.500	.097	.045	.021	.012	.004			
6.000	.047	.023	.003	.008	.028			

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Table 13 Continued
Plate and Spoiler Pressure Coefficients
Configuration 8 $M = 1.61$ $R = 0.14 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = -45^\circ$										
-6.000	-0.033	0.068	0.233	0.233	0.187	0.042		1	0.342	
-5.500	-0.037	0.200	0.253	0.239	0.199	0.022		2	0.322	
-5.000	0.208	0.243	0.257	0.223	0.207	0.006		3	0.298	
-4.500	0.261	0.259	0.264	0.244	0.209	0.006		4	0.285	
-4.000	0.272	0.270	0.253	0.239	0.207	0.046	0.229	5	0.312	
-3.500	0.268	0.270	0.257	0.233	0.189	0.082	0.292	6	0.384	
-3.000	0.261	0.261	0.243	0.209	0.151	0.090	0.306	7	0.163	
-2.750	0.257	0.296	0.237	0.185	0.135	0.096	0.306	8	-0.261	
-2.500	0.243	0.245	0.218	0.166	0.125	0.105	0.304	9	-0.275	
-2.250	0.245	0.226	0.189	0.142	0.109	0.113	0.287	10	-0.273	
-2.000	0.189	0.187	0.167	0.121	0.097	0.125	0.237	11	-0.263	
-1.750	0.154	0.150	0.146	0.121	0.101	0.151	0.179	12	0.633	
-1.500	0.124	0.109	0.128	0.118	0.121	0.187	0.147	13	0.637	
-1.250	0.078	0.105	0.107	0.105	0.143	0.241	0.131	14	0.641	
-1.000	0.107	0.113	0.097	0.115	0.173	0.279	0.153	15	0.667	
-0.750	0.128	0.136	0.137	0.148	0.213	0.294	0.245	16	0.692	
-0.625	0.165	0.154	0.169	0.185	0.257	0.326	0.340	17	0.698	
-0.500	0.212	0.220	0.204	0.249	0.310	0.346	0.460	18	0.525	
-0.375	0.253	0.270	0.290	0.317	0.340	0.354	0.567	19	-0.448	
-0.250	0.323	0.321	0.327	0.362	0.360	0.360	0.627	20	-0.452	
-0.125	0.366		0.354		0.366		0.631	21	-0.444	
0.000	0.377		0.375		0.376		0.633	22	-0.428	
$\Delta = -45^\circ$										
+250	-0.259	-0.257	-0.266	-0.266			-0.456			
0375	-0.251	-0.276	-0.282	-0.279	-0.273		-0.448			
500	-0.270	-0.278	-0.292	-0.292	-0.285		-0.456			
1750	-0.299	-0.305	-0.311	-0.306	-0.308	-0.302	-0.458			
10000	-0.321	-0.239	-0.335	-0.335	-0.328	-0.332	-0.454			
1250	-0.329	-0.319	-0.351	-0.352	-0.350	-0.364	-0.432			
1500	-0.346	-0.364	-0.384	-0.368	-0.376	-0.384	-0.390			
1750	-0.336	-0.346	-0.366	-0.366	-0.386	-0.388	-0.308			
20000	-0.288	-0.305	-0.247	-0.372	-0.404	-0.398	-0.177			
2250	-0.239	-0.274	-0.362	-0.388	-0.416	-0.422	-0.066			
2500	-0.198	-0.301	-0.359	-0.388	-0.416	-0.428	-0.014			
2750	-0.163	-0.327	-0.362	-0.362	-0.418	-0.430	-0.008			
3000	-0.189	-0.286	-0.298	-0.352	-0.416	-0.444	-0.014			
3500	-0.039	0.021	0.000	-0.135	-0.360	-0.446				
4000	0.121	0.039	-0.003	-0.010	-0.078	-0.418				
4500	0.086	0.008	-0.030	0.020	0.040	-0.269				
5000	0.058	-0.012	-0.027	0.020	-0.018	-0.163				
5500	0.012	-0.021	-0.027	-0.012	-0.062	-0.231				
6000	0.012	-0.021	-0.011	-0.034	-0.133	-0.306				
$\Delta = -60^\circ$										
-6.000	-0.033	-0.016	0.117	0.158	0.169	-0.010		1	0.289	
-5.500	-0.027	0.021	0.138	0.161	0.175	0.002		2	0.290	
-5.000	0.002	0.095	0.154	0.158	0.177	0.032		3	0.294	
-4.500	0.086	0.142	0.179	0.185	0.181	0.076		4	0.292	
-4.000	0.150	0.163	0.191	0.177	0.177	0.097	-0.024	5	0.289	
-3.500	0.175	0.183	0.198	0.177	0.177	0.101	0.048	6	0.261	
-3.000	0.175	0.189	0.191	0.177	0.149	0.125	0.167	7	-0.175	
-2.750	0.187	0.229	0.196	0.177	0.129	0.141	0.195	8	0.159	
-2.500	0.187	0.183	0.191	0.166	0.121	0.161	0.207	9	0.199	
-2.250	0.220	0.191	0.187	0.145	0.113	0.183	0.211	10	-0.225	
-2.000	0.187	0.181	0.175	0.118	0.117	0.205	0.211	11	-0.281	
-1.750	0.169	0.163	0.146	0.110	0.141	0.225	0.207	12	-0.378	
-1.500	0.126	0.126	0.117	0.110	0.173	0.243	0.171	13	0.374	
-1.250	0.068	0.105	0.121	0.129	0.207	0.259	0.119	14	0.372	
-1.000	0.130	0.136	0.129	0.180	0.235	0.255	0.129	15	0.372	
-0.750	0.189	0.212	0.204	0.233	0.255	0.263	0.237	16	0.360	
-0.625	0.233	0.259	0.223	0.252	0.267	0.269	0.318	17	0.324	
-0.500	0.270	0.257	0.223	0.249	0.273	0.271	0.368	18	0.253	
-0.375	0.276	0.296	0.282	0.282	0.290	0.285	0.382	19	-0.406	
-0.250	0.284	0.284	0.271	0.303	0.294	0.290	0.378	20	-0.346	
-0.125	0.284		0.282		0.294		0.382	21	-0.350	
0.000	0.309	0.309	0.303	0.303	0.320	0.314	0.382	22	-0.348	
$\Delta = -60^\circ$										
+250	-0.167	-0.159	-0.169	-0.177			-0.432			
0375	-0.150	-0.165	-0.188	-0.199	-0.187		-0.434			
500	-0.194	-0.204	-0.217	-0.223	-0.221		-0.418			
1750	-0.311	-0.325	-0.341	-0.322	-0.275	-0.265	-0.402			
10000	-0.334	-0.272	-0.394	-0.405	-0.354	-0.322	-0.290			
1250	-0.385	-0.408	-0.432	-0.416	-0.414	-0.388	-0.227			
1500	-0.387	-0.391	-0.413	-0.416	-0.438	-0.424	-0.161			
1750	-0.115	-0.299	-0.330	-0.392	-0.438	-0.438	-0.107			
2000	-0.214	-0.189	-0.150	-0.328	-0.410	-0.436	-0.078			
2250	-0.132	-0.103	-0.150	-0.247	-0.390	-0.428	-0.064			
2500	-0.097	-0.045	-0.094	-0.165	-0.322	-0.400	-0.050			
2750	-0.068	-0.025	-0.070	-0.103	-0.205	-0.352	-0.038			
3000	-0.070	-0.049	-0.062	-0.032	-0.082	-0.344	-0.030			
3500	-0.033	-0.051	-0.030	-0.022	-0.125	-0.298				
4000	-0.029	-0.031	-0.008	-0.052	-0.046	-0.111				
4500	-0.033	-0.031	-0.056	-0.020	-0.048	-0.094				
5000	-0.039	-0.023	-0.046	-0.050	-0.117	-0.167				
5500	-0.062	-0.019	-0.051	-0.123	-0.189	-0.370				
6000	-0.037	-0.033	-0.078	-0.109	-0.127	-0.219				

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Table 13 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.14 \times 10^6$

x, in.	Plate								Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9			
$\Delta\alpha = -75^\circ$										
-6.000	-0.021	0.021	0.037	0.024	0.036	-0.016		1	.050	
-5.500	-0.008	0.041	0.033	0.027	0.040	-0.020		2	.052	
-5.000	0.021	0.045	0.033	0.016	0.044	0.002		3	.064	
-4.500	0.039	0.039	0.027	0.038	0.044	0.036		4	.058	
-4.000	0.049	0.041	0.039	0.032	0.050	0.054	-0.010	5	.050	
-3.500	0.045	0.041	0.035	0.035	0.052	0.056	0.016	6	.032	
-3.000	0.037	0.039	0.029	0.035	0.054	0.056	0.064	7	-0.157	
-2.750	0.043	0.095	0.043	0.038	0.060	0.052	0.082	8	.080	
-2.500	0.039	0.039	0.045	0.038	0.056	0.052	0.092	9	.092	
-2.250	0.086	0.045	0.043	0.038	0.052	0.052	0.086	10	.159	
-2.000	0.045	0.041	0.041	0.035	0.052	0.052	0.088	11	.171	
-1.750	0.054	0.041	0.045	0.051	0.048	0.060	0.082	12	.086	
-1.500	0.049	0.039	0.037	0.048	0.042	0.058	0.080	13	.086	
-1.250	0.016	0.041	0.047	0.038	0.040	0.056	0.078	14	.082	
-1.000	0.049	0.043	0.040	0.035	0.042	0.056	0.070	15	.078	
-0.750	0.039	0.035	0.024	0.038	0.052	0.052	0.064	16	.068	
-0.625	0.045	0.051	0.032	0.035	0.048	0.050	0.066	17	.046	
-0.500	0.058	0.072	0.013	0.035	0.054	0.070	0.076	18	-0.060	
-0.375	0.045	0.062	0.070	0.067	0.072	0.072	0.082	19	.125	
-0.250	0.051	0.047	0.051	0.089	0.072	0.068	0.086	20	-0.076	
-0.125	0.062	0.054			0.068		0.090	21	-0.181	
0.000	0.086	0.080	0.089	0.086	0.094	0.090	0.094	22	.316	
+2.50	0.080	0.054	0.027	0.013			-0.149			
+3.75	0.068	0.008	-0.024	-0.030	-0.018		-0.143			
+5.00	-0.006	-0.062	-0.078	-0.056	-0.030		-0.139			
+7.50	-0.095	-0.095	-0.089	-0.078	-0.044	-0.024	-0.137			
1.000	-0.072	-0.027	-0.078	-0.110	-0.111	-0.090	-0.092			
1.250	-0.025	-0.078	-0.177	-0.209	-0.253	-0.217	-0.092			
1.500	-0.031	-0.099	-0.172	-0.169	-0.231	-0.259	-0.080			
1.750	0.072	-0.132	-0.137	-0.115	-0.175	-0.253	-0.058			
2.000	-0.060	-0.111	-0.048	-0.086	-0.127	-0.227	-0.050			
2.250	-0.078	-0.074	-0.086	-0.064	-0.139	-0.225	-0.046			
2.500	-0.095	-0.051	-0.032	-0.024	-0.064	-0.318	-0.046			
2.750	-0.074	-0.045	-0.032	0.008	0.020	-0.050	-0.050			
3.000	-0.068	-0.039	-0.027	0.000	-0.032	-0.038	-0.068			
3.500	-0.045	-0.019	-0.024	-0.042	-0.070	-0.086				
4.000	-0.033	-0.025	-0.048	-0.032	-0.034	-0.050				
4.500	-0.019	-0.037	-0.048	-0.060	-0.072	-0.010				
5.000	-0.016	-0.033	-0.105	-0.123	-0.183	-0.279				
5.500	-0.041	-0.049	-0.097	-0.060	-0.084	-0.245				
6.000	-0.025	-0.084	-0.048	-0.012	0.006	-0.096				

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Table 14
Plate and Spoiler Pressure Coefficients
Configuration 8 M = 1.61 R = 0.23 × 10⁶

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6.000	-0.004	-0.006	-0.004	-0.003	0.272	0.222			1
-5.500	-0.009	-0.007	-0.007	0.160	0.305	0.220			2
-5.000	-0.005	-0.007	0.058	0.294	0.317	0.217			3
-4.500	-0.124	-0.171	0.301	0.339	0.328	0.198			4
-4.000	0.326	0.326	0.352	0.349	0.342	0.182	0.331		5
-3.500	0.364	0.366	0.373	0.363	0.348	0.204	0.368		6
-3.000	0.377	0.378	0.382	0.371	0.352	0.247	0.378		7
-2.750	0.378	0.398	0.385	0.379	0.351	0.267	0.382		8
-2.500	0.383	0.388	0.387	0.373	0.345	0.291	0.389		9
-2.250	0.401	0.393	0.392	0.373	0.333	0.310	0.387		10
-2.000	0.387	0.392	0.387	0.360	0.329	0.332	0.390		11
-1.750	0.392	0.392	0.378	0.354	0.325	0.358	0.386		12
-1.500	0.392	0.379	0.364	0.339	0.329	0.387	0.376		13
-1.250	0.344	0.341	0.346	0.325	0.340	0.424	0.362		14
-1.000	0.343	0.343	0.353	0.328	0.352	0.465	0.342		15
-0.750	0.336	0.335	0.334	0.350	0.399	0.516	0.328		16
-0.625	0.347	0.348	0.349	0.373	0.429	0.545	0.344		17
-0.500	0.366	0.358	0.370	0.400	0.466	0.575	0.362		18
-0.375	0.399	0.401	0.412	0.449	0.514	0.601	0.400		19
-0.250	0.461	0.468	0.475	0.520	0.576	0.605	0.471		20
-0.125	0.569	0.573	0.573	0.604	0.604	0.586	0.566		21
.000	0.572	0.575	0.567	0.575	0.578	0.574	0.587		22
$\Delta = 15^\circ$									
-6.000	-0.006	-0.005	-0.004	-0.005	0.026	0.229			1
-5.500	-0.004	-0.009	-0.010	0.005	0.253	0.248			2
-5.000	-0.001	-0.007	0.042	0.241	0.315	0.249			3
-4.500	0.211	0.209	0.289	0.347	0.329	0.238			4
-4.000	0.330	0.339	0.353	0.360	0.348	0.169	0.332		5
-3.500	0.357	0.361	0.373	0.375	0.331	0.187	0.354		6
-3.000	0.363	0.368	0.378	0.376	0.279	0.235	0.366		7
-2.750	0.361	0.384	0.383	0.360	0.268	0.257	0.370		8
-2.500	0.363	0.370	0.378	0.341	0.265	0.275	0.375		9
-2.250	0.379	0.375	0.366	0.328	0.263	0.305	0.376		10
-2.000	0.366	0.364	0.354	0.312	0.273	0.335	0.378		11
-1.750	0.362	0.356	0.339	0.302	0.279	0.362	0.378		12
-1.500	0.357	0.344	0.327	0.295	0.291	0.383	0.372		13
-1.250	0.338	0.335	0.312	0.295	0.305	0.407	0.357		14
-1.000	0.333	0.325	0.313	0.312	0.323	0.430	0.335		15
-0.750	0.316	0.315	0.315	0.321	0.351	0.457	0.333		16
-0.625	0.322	0.315	0.323	0.334	0.375	0.474	0.340		17
-0.500	0.326	0.326	0.337	0.360	0.400	0.491	0.362		18
-0.375	0.344	0.344	0.360	0.396	0.439	0.507	0.393		19
-0.250	0.388	0.389	0.407	0.447	0.484	0.508	0.455		20
-0.125	0.475	0.486	0.486	0.502	0.544	0.544	0.544		21
.000	0.484	0.479	0.488	0.491	0.486	0.484	0.542		22
$\Delta = 15^\circ$									
-6.000	-0.006	-0.005	-0.004	-0.005	0.026	0.229			1
-5.500	-0.004	-0.009	-0.010	0.005	0.253	0.248			2
-5.000	-0.001	-0.007	0.042	0.241	0.315	0.249			3
-4.500	0.211	0.209	0.289	0.347	0.329	0.238			4
-4.000	0.330	0.339	0.353	0.360	0.348	0.169	0.332		5
-3.500	0.357	0.361	0.373	0.375	0.331	0.187	0.354		6
-3.000	0.363	0.368	0.378	0.376	0.279	0.235	0.366		7
-2.750	0.361	0.384	0.383	0.360	0.268	0.257	0.370		8
-2.500	0.363	0.370	0.378	0.341	0.265	0.275	0.375		9
-2.250	0.379	0.375	0.366	0.328	0.263	0.305	0.376		10
-2.000	0.366	0.364	0.354	0.312	0.273	0.335	0.378		11
-1.750	0.362	0.356	0.339	0.302	0.279	0.362	0.378		12
-1.500	0.357	0.344	0.327	0.295	0.291	0.383	0.372		13
-1.250	0.338	0.335	0.312	0.295	0.305	0.407	0.357		14
-1.000	0.333	0.325	0.313	0.312	0.323	0.430	0.335		15
-0.750	0.316	0.315	0.315	0.321	0.351	0.457	0.333		16
-0.625	0.322	0.315	0.323	0.334	0.375	0.474	0.340		17
-0.500	0.326	0.326	0.337	0.360	0.400	0.491	0.362		18
-0.375	0.344	0.344	0.360	0.396	0.439	0.507	0.393		19
-0.250	0.388	0.389	0.407	0.447	0.484	0.508	0.455		20
-0.125	0.475	0.486	0.486	0.502	0.542	0.544	0.544		21
.000	0.484	0.479	0.488	0.491	0.486	0.484	0.542		22

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Table 14 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.31$ $R = 0.23 \times 10^6$

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 30^\circ$									
-6.000	-0.010	-0.011	-0.007	.000	.000	-0.005			1 .548
-5.500	-0.007	-0.011	-0.011	-0.002	.005	.087			2 .511
-5.000	.021	-0.009	-0.011	-0.002	.137	.259			3 .394
-4.500	.258	.152	.135	.258	.322	.281			4 .400
-4.000	.328	.321	.326	.350	.353	.244	.320		5 .478
-3.500	.346	.348	.358	.370	.350	.158	.320		6 .617
-3.000	.348	.354	.363	.363	.250	.196	.317		7 .364
-2.750	.352	.367	.359	.331	.220	.205	.317		8 .369
-2.500	.338	.346	.342	.289	.201	.229	.315		9 .394
-2.250	.330	.323	.300	.241	.198	.287	.304		10 .401
-2.000	.291	.286	.254	.207	.195	.366	.296		11 .390
-1.750	.252	.238	.212	.203	.205	.468	.280		12 .350
-1.500	.216	.199	.190	.189	.213	.550	.262		13 .291
-1.250	.175	.180	.177	.192	.261	.613	.243		14 .269
-1.000	.180	.177	.189	.218	.335	.659	.223		15 .292
-0.750	.185	.195	.228	.289	.450	.672	.211		16 .329
-0.625	.216	.229	.268	.354	.509	.687	.210		17 .381
-0.500	.239	.292	.337	.428	.562	.671	.217		18 .371
-0.375	.362	.380	.421	.515	.610	.655	.244		19 .313
-0.250	.479	.488	.533	.588	.642	.632	.298		20 .309
-0.125	.596	.618	.619	.619	.619	.388			21 .319
+0.000	.580	.577	.576	.588	.590	.583	.381		22 .319
$\Delta = 45^\circ$									
-6.000	-0.011	-0.006	-0.007	.005	.006	.004			1 .619
-5.500	-0.002	-0.009	-0.006	-0.003	.005	.005			2 .611
-5.000	-0.002	-0.010	-0.011	-0.006	.008	.004			3 .601
-4.500	.072	-0.007	-0.004	.006	.022	.244			4 .625
-4.000	.268	.176	.112	.191	.304	.345	.298		5 .677
-3.500	.310	.304	.301	.331	.360	.220	.295		6 .717
-3.000	.312	.322	.331	.360	.323	.190	.293		7 .013
-2.750	.320	.338	.341	.352	.241	.205	.293		8 .426
-2.500	.317	.323	.336	.318	.193	.248	.285		9 .430
-2.250	.320	.317	.309	.249	.181	.336	.261		10 .429
-2.000	.275	.280	.252	.200	.184	.456	.236		11 .426
-1.750	.223	.227	.198	.187	.196	.582	.205		12 .350
-1.500	.187	.177	.175	.182	.241	.663	.168		13 .313
-1.250	.134	.165	.167	.195	.341	.702	.144		14 .273
-1.000	.157	.185	.203	.276	.478	.719	.132		15 .269
-0.750	.216	.260	.307	.417	.601	.711	.140		16 .311
-0.625	.301	.351	.394	.505	.629	.695	.154		17 .381
-0.500	.395	.437	.492	.576	.649	.678	.190		18 .398
-0.375	.523	.550	.575	.620	.656	.661	.245		19 .338
-0.250	.600	.602	.614	.644	.651	.649	.321		20 .313
-0.125	.624	.631	.631	.639	.639	.380			21 .273
+0.000	.615	.617	.618	.623	.630	.626	.365		22 .274

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Table 14 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 M = 1.61 R = 0.23 x 10⁶

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	-0.011	-0.007	-0.009	-0.008	0.000	-0.004			1
-5.500	-0.004	-0.009	-0.011	-0.002	0.002	-0.000			2
-5.000	-0.010	-0.007	-0.006	-0.011	0.004	-0.004			3
-4.500	-0.011	-0.010	-0.006	-0.003	0.002	-0.004			4
-4.000	-0.014	-0.009	-0.006	-0.003	0.004	-0.170	+0.206		5
-3.500	-0.014	-0.008	-0.016	-0.005	-0.216	-0.326	+0.223		6
-3.000	-0.016	-0.008	-0.016	-0.005	-0.299	-0.201	+0.229		7
-2.750	-0.016	-0.008	-0.016	-0.005	-0.303	-0.174	+0.228		8
-2.500	-0.016	-0.008	-0.016	-0.005	-0.279	-0.222	+0.229		9
-2.250	-0.016	-0.008	-0.016	-0.005	-0.274	-0.193	+0.219		10
-2.000	-0.016	-0.008	-0.016	-0.005	-0.246	-0.153	+0.199		11
-1.750	-0.016	-0.008	-0.016	-0.005	-0.227	-0.171	+0.170		12
-1.500	-0.017	-0.016	-0.016	-0.017	-0.237	-0.147	+0.156		13
-1.250	-0.018	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		14
-1.000	-0.018	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		15
-0.750	-0.018	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		16
-0.625	-0.018	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		17
-0.500	-0.019	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		18
-0.375	-0.019	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		19
-0.250	-0.019	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		20
-0.125	-0.019	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		21
+0.000	-0.019	-0.016	-0.016	-0.017	-0.237	-0.147	+0.145		22
+2.500	-0.368	-0.356	-0.354	-0.336			+0.375		
+3.75	-0.401	-0.408	-0.388	-0.355	-0.332		+0.376		
+5.000	-0.441	-0.442	-0.431	-0.396	-0.346		+0.377		
+7.500	-0.404	-0.444	-0.457	-0.433	-0.408	-0.340	+0.335		
1.0000	-0.317	-0.346	-0.442	-0.411	-0.417	-0.271	+0.303		
1.2500	-0.180	-0.297	-0.392	-0.438	-0.376	-0.255	+0.248		
1.5000	-0.046	-0.169	-0.312	-0.418	-0.348	-0.256	+0.267		
1.7500	-0.061	-0.069	-0.205	-0.371	-0.317	-0.265	+0.351		
2.0000	-0.028	-0.030	-0.078	-0.317	-0.302	-0.284	+0.222		
2.2500	-0.028	-0.009	-0.026	-0.249	-0.296	-0.310	+0.084		
2.5000	-0.017	-0.007	-0.011	-0.170	-0.293	-0.346	+0.005		
2.7500	-0.004	-0.002	-0.026	-0.083	-0.308	-0.378	+0.029		
3.0000	-0.014	-0.000	-0.019	-0.016	-0.340	-0.313	+0.038		
3.5000	-0.035	-0.010	-0.023	-0.026	-0.319	-0.313			
4.0000	-0.062	-0.002	-0.010	-0.036	-0.251	-0.339			
4.5000	-0.062	-0.004	-0.000	-0.043	-0.177	-0.347			
5.0000	-0.052	-0.006	-0.005	-0.041	-0.084	-0.317			
5.5000	-0.050	-0.006	-0.003	-0.035	-0.036	-0.303			
6.0000	-0.045	-0.001	-0.003	-0.030	-0.032	-0.295			
$\Delta = 75^\circ$									
-6.000	-0.004	-0.007	-0.006	-0.003	-0.001	-0.001			1
-5.500	-0.001	-0.009	-0.005	-0.000	-0.002	-0.002			2
-5.000	-0.005	-0.007	-0.005	-0.006	-0.002	-0.006			3
-4.500	-0.006	-0.010	-0.009	-0.005	-0.001	-0.004			4
-4.0000	-0.005	-0.007	-0.005	-0.008	-0.000	-0.004	+0.086		5
-3.5000	-0.041	-0.005	-0.002	-0.002	-0.018	-0.175	+0.087		6
-3.0000	-0.089	-0.061	-0.048	-0.074	-0.147	-0.218	+0.083		7
-2.7500	-0.103	-0.114	-0.102	-0.126	-0.175	-0.207	+0.079		8
-2.5000	-0.105	-0.116	-0.123	-0.152	-0.176	-0.192	+0.083		9
-2.2500	-0.125	-0.135	-0.153	-0.153	-0.169	-0.183	+0.077		10
-2.0000	-0.108	-0.120	-0.133	-0.149	-0.160	-0.175	+0.080		11
-1.7500	-0.109	-0.123	-0.135	-0.152	-0.145	-0.171	+0.083		12
-1.5000	-0.108	-0.113	-0.128	-0.139	-0.138	-0.169	+0.080		13
-1.2500	-0.068	-0.114	-0.116	-0.113	-0.138	-0.162	+0.079		14
-1.0000	-0.094	-0.098	-0.105	-0.119	-0.143	-0.159	+0.073		15
-0.7500	-0.085	-0.108	-0.115	-0.129	-0.145	-0.154	+0.069		16
-0.625	-0.084	-0.129	-0.119	-0.131	-0.145	-0.151	+0.074		17
-0.500	-0.104	-0.125	-0.129	-0.134	-0.145	-0.147	+0.080		18
-0.375	-0.105	-0.142	-0.121	-0.140	-0.145	-0.145	+0.091		19
-0.250	-0.134	-0.123	-0.128	-0.145	-0.145	-0.140	+0.095		20
-0.125	-0.126	-0.134	-0.134	-0.138	-0.138	-0.103			21
+0.000	-0.139	-0.141	-0.145	-0.149	-0.145	-0.145	+0.102		22
+2.50	-0.135	-0.123	-0.108	-0.098			+0.249		
+3.75	-0.150	-0.152	-0.139	-0.121	-0.093		+0.226		
+5.00	-0.166	-0.164	-0.163	-0.132	-0.092		+0.216		
+7.50	-0.121	-0.146	-0.158	-0.145	-0.091	-0.042	+0.230		
1.0000	-0.072	-0.078	-0.131	-0.105	-0.069	-0.022	+0.134		
1.2500	-0.110	-0.102	-0.100	-0.041	-0.075	-0.024	+0.037		
1.5000	-0.099	-0.046	-0.079	-0.028	-0.072	-0.034	+0.000		
1.7500	-0.030	-0.056	-0.065	-0.042	-0.060	-0.066	+0.006		
2.0000	-0.058	-0.058	-0.042	-0.041	-0.041	-0.096	+0.017		
2.2500	-0.055	-0.051	-0.053	-0.034	-0.016	-0.110	+0.026		
2.5000	-0.057	-0.055	-0.039	-0.028	-0.017	-0.101	+0.026		
2.7500	-0.064	-0.048	-0.036	-0.028	-0.051	-0.050	+0.025		
3.0000	-0.072	-0.048	-0.039	-0.028	-0.061	-0.114	+0.022		
3.5000	-0.059	-0.047	-0.019	-0.023	-0.032	-0.205			
4.0000	-0.063	-0.040	-0.021	-0.023	-0.013	-0.188			
4.5000	-0.077	-0.050	-0.021	-0.024	-0.008	-0.135			
5.0000	-0.052	-0.052	-0.011	-0.025	-0.012	-0.134			
5.5000	-0.027	-0.040	-0.011	-0.025	-0.016	-0.114			
6.0000	-0.002	-0.033	-0.006	-0.025	-0.005	-0.047			

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Table 14 Continued
Plate and Spoiler Pressure Coefficients
Configuration 8 M = 1.61 R = 0.23 x 10⁶

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = -15^\circ$									
-6.000	-0.014	-0.014	-0.011	+0.203	+0.269	+0.184		1	+479
-5.500	-0.016	-0.014	-0.011	+0.286	+0.285	+0.182		2	+425
-5.000	-0.032	-0.071	+0.253	+0.304	+0.292	+0.175		3	+408
-4.500	-0.254	-0.274	+0.306	+0.323	+0.303	+0.164		4	+433
-4.000	-0.316	-0.320	+0.327	+0.325	+0.316	+0.182		5	+485
-3.500	-0.330	-0.332	+0.342	+0.339	+0.332	+0.220		6	+562
-3.000	-0.335	-0.343	+0.348	+0.352	+0.336	+0.261		7	+372
-2.750	-0.338	-0.359	+0.353	+0.358	+0.332	+0.277		8	+350
-2.500	-0.341	-0.343	+0.354	+0.355	+0.326	+0.293		9	+350
-2.250	-0.361	-0.354	+0.362	+0.354	+0.321	+0.310		10	+350
-2.000	-0.349	-0.354	+0.359	+0.352	+0.313	+0.326		11	+347
-1.750	-0.353	-0.358	+0.357	+0.347	+0.316	+0.348		12	+448
-1.500	-0.348	-0.349	+0.344	+0.334	+0.321	+0.370		13	+380
-1.250	-0.330	-0.343	+0.336	+0.321	+0.334	+0.395		14	+360
-1.000	-0.331	-0.328	+0.316	+0.326	+0.351	+0.428		15	+382
-0.750	-0.318	-0.321	+0.323	+0.347	+0.382	+0.467		16	+429
-0.625	-0.326	-0.328	+0.334	+0.360	+0.405	+0.493		17	+499
-0.500	-0.343	-0.351	+0.357	+0.388	+0.435	+0.510		18	+510
-0.375	-0.370	-0.378	+0.392	+0.426	+0.471	+0.533		19	+364
-0.250	-0.422	-0.429	+0.442	+0.483	+0.520	+0.541		20	+370
-0.125	-0.513	-0.525			+0.542			21	+371
0.000	-0.520	-0.522	+0.515	+0.525	+0.523	+0.522		22	+366
$\Delta = -30^\circ$									
-6.000	-0.015	+0.020	+0.234	+0.262	+0.218	+0.109		1	+361
-5.500	-0.067	+0.209	+0.275	+0.270	+0.219	+0.109		2	+278
-5.000	-0.256	+0.279	+0.286	+0.266	+0.220	+0.105		3	+255
-4.500	-0.300	+0.299	+0.250	+0.273	+0.226	+0.121		4	+262
-4.000	-0.311	+0.305	+0.286	+0.262	+0.232	+0.154		5	+303
-3.500	-0.307	+0.295	+0.282	+0.266	+0.240	+0.183		6	+375
-3.000	-0.300	+0.294	+0.281	+0.273	+0.240	+0.201		7	+188
-2.750	-0.302	+0.310	+0.290	+0.268	+0.240	+0.206		8	+1273
-2.500	-0.291	+0.291	+0.281	+0.262	+0.238	+0.208		9	+280
-2.250	-0.302	+0.286	+0.274	+0.254	+0.229	+0.211		10	+274
-2.000	-0.271	+0.275	+0.265	+0.250	+0.218	+0.216		11	+261
-1.750	-0.259	+0.259	+0.252	+0.242	+0.211	+0.222		12	+604
-1.500	-0.232	+0.237	+0.230	+0.223	+0.206	+0.200		13	+536
-1.250	-0.191	+0.216	+0.212	+0.207	+0.205	+0.249		14	+467
-1.000	-0.185	+0.193	+0.195	+0.195	+0.201	+0.245		15	+484
-0.750	-0.173	+0.188	+0.189	+0.199	+0.203	+0.232		16	+589
-0.625	-0.182	+0.176	+0.182	+0.182	+0.216	+0.251		17	+756
-0.500	-0.201	+0.187	+0.200	+0.200	+0.234	+0.285		18	+566
-0.375	-0.224	+0.233	+0.242	+0.279	+0.323	+0.388		19	+453
-0.250	-0.282	+0.290	+0.304	+0.349	+0.376	+0.393		20	+449
-0.125	-0.384	+0.379	+0.371	+0.386	+0.380	+0.378		21	+445
0.000	-0.379	+0.379	+0.371	+0.386	+0.380	+0.387		22	+428
$\Delta = -45^\circ$									
-6.000	-0.015	+0.020	+0.234	+0.262	+0.218	+0.109		1	+361
-5.500	-0.067	+0.209	+0.275	+0.270	+0.219	+0.109		2	+278
-5.000	-0.256	+0.279	+0.286	+0.266	+0.220	+0.105		3	+255
-4.500	-0.300	+0.299	+0.250	+0.273	+0.226	+0.121		4	+262
-4.000	-0.311	+0.305	+0.286	+0.262	+0.232	+0.154		5	+303
-3.500	-0.307	+0.295	+0.282	+0.266	+0.240	+0.183		6	+375
-3.000	-0.300	+0.294	+0.281	+0.273	+0.240	+0.201		7	+188
-2.750	-0.302	+0.310	+0.290	+0.268	+0.240	+0.206		8	+1273
-2.500	-0.291	+0.291	+0.281	+0.262	+0.238	+0.208		9	+280
-2.250	-0.302	+0.286	+0.274	+0.254	+0.229	+0.211		10	+274
-2.000	-0.271	+0.275	+0.265	+0.250	+0.218	+0.216		11	+261
-1.750	-0.259	+0.259	+0.252	+0.242	+0.211	+0.222		12	+604
-1.500	-0.232	+0.237	+0.230	+0.223	+0.206	+0.200		13	+536
-1.250	-0.191	+0.216	+0.212	+0.207	+0.205	+0.249		14	+467
-1.000	-0.185	+0.193	+0.195	+0.195	+0.201	+0.245		15	+484
-0.750	-0.173	+0.188	+0.189	+0.199	+0.203	+0.232		16	+589
-0.625	-0.182	+0.176	+0.182	+0.182	+0.216	+0.251		17	+756
-0.500	-0.201	+0.187	+0.200	+0.200	+0.234	+0.285		18	+566
-0.375	-0.224	+0.233	+0.242	+0.279	+0.323	+0.388		19	+453
-0.250	-0.282	+0.290	+0.304	+0.349	+0.376	+0.393		20	+449
-0.125	-0.384	+0.379	+0.371	+0.386	+0.380	+0.387		21	+445
0.000	-0.379	+0.379	+0.371	+0.386	+0.380	+0.387		22	+428

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Table 14 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.23 \times 10^6$

x , in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = -45^\circ$									
-6.000	-0.014	0.072	0.243	0.255	0.205	0.056		1	0.362
-5.500	-0.037	0.211	0.258	0.254	0.217	0.036		2	0.339
-5.000	-0.216	0.255	0.266	0.254	0.224	0.012		3	0.311
-4.500	-0.264	0.271	0.274	0.260	0.229	0.025		4	0.302
-4.000	-0.278	0.269	0.268	0.257	0.223	0.072	0.235	5	0.329
-3.500	-0.278	0.264	0.266	0.250	0.207	0.104	0.298	6	0.398
-3.000	-0.273	0.263	0.258	0.228	0.171	0.109	0.310	7	0.147
-2.750	-0.270	0.279	0.252	0.212	0.157	0.117	0.311	8	-0.238
-2.500	-0.261	0.255	0.234	0.192	0.146	0.123	0.310	9	-0.255
-2.250	-0.253	0.235	0.207	0.166	0.126	0.129	0.292	10	-0.250
-2.000	-0.211	0.199	0.183	0.145	0.116	0.140	0.256	11	-0.243
-1.750	-0.178	0.167	0.160	0.140	0.123	0.169	0.202	12	0.648
-1.500	-0.147	0.134	0.131	0.131	0.139	0.204	0.171	13	0.650
-1.250	-0.099	0.125	0.114	0.121	0.159	0.250	0.157	14	0.654
-1.000	-0.119	0.128	0.118	0.137	0.187	0.289	0.176	15	0.674
-0.750	-0.149	0.151	0.160	0.176	0.235	0.311	0.267	16	0.701
-0.625	-0.178	0.175	0.192	0.218	0.275	0.339	0.362	17	0.702
-0.500	-0.224	0.225	0.224	0.263	0.321	0.353	0.483	18	0.475
-0.375	-0.275	0.279	0.295	0.321	0.353	0.364	0.578	19	-0.443
-0.250	-0.330	0.328	0.333	0.365	0.370	0.371	0.638	20	-0.433
-0.125	-0.374			0.375	0.380		0.653	21	-0.430
0.000	-0.377		0.368	0.381	0.377	0.376	0.644	22	-0.408
$\Delta = -60^\circ$									
-6.000	-0.001	0.010	0.144	0.194	0.195	0.016		1	0.329
-5.500	-0.002	0.058	0.171	0.194	0.201	0.031		2	0.332
-5.000	-0.033	0.136	0.196	0.199	0.205	0.047		3	0.333
-4.500	-0.124	0.180	0.202	0.215	0.212	0.099		4	0.331
-4.000	-0.185	0.202	0.217	0.208	0.202	0.121	-0.002	5	0.320
-3.500	-0.207	0.214	0.227	0.208	0.194	0.137	0.096	6	0.290
-3.000	-0.218	0.214	0.214	0.208	0.153	0.170	0.205	7	-0.168
-2.750	-0.216	0.233	0.223	0.197	0.137	0.188	0.225	8	-0.154
-2.500	-0.212	0.219	0.216	0.184	0.132	0.210	0.236	9	-0.162
-2.250	-0.229	0.213	0.203	0.149	0.135	0.230	0.240	10	-0.183
-2.000	-0.199	0.198	0.177	0.126	0.152	0.255	0.237	11	-0.242
-1.750	-0.169	0.165	0.146	0.128	0.184	0.281	0.216	12	-0.424
-1.500	-0.125	0.125	0.121	0.142	0.222	0.296	0.157	13	0.419
-1.250	-0.094	0.134	0.146	0.178	0.260	0.304	0.129	14	0.419
-1.000	-0.162	0.176	0.187	0.239	0.289	0.308	0.168	15	0.414
-0.750	-0.245	0.261	0.263	0.286	0.301	0.313	0.307	16	0.402
-0.625	-0.286	0.312	0.284	0.302	0.315	0.315	0.390	17	0.366
-0.500	-0.311	0.302	0.286	0.302	0.315	0.311	0.428	18	0.180
-0.375	-0.318	0.336	0.326	0.321	0.322	0.325	0.432	19	-0.372
-0.250	-0.325	0.330	0.316	0.336	0.329	0.329	0.431	20	-0.316
-0.125	-0.330		0.325		0.329		0.430	21	-0.317
0.000	-0.331		0.323	0.329	0.329	0.332	0.428	22	-0.314
$\Delta = -120^\circ$									
-6.000	-0.001	0.010	0.144	0.194	0.195	0.016		1	0.329
-5.500	-0.002	0.058	0.171	0.194	0.201	0.031		2	0.332
-5.000	-0.033	0.136	0.196	0.199	0.205	0.047		3	0.333
-4.500	-0.124	0.180	0.202	0.215	0.212	0.099		4	0.331
-4.000	-0.185	0.202	0.217	0.208	0.202	0.121	-0.002	5	0.320
-3.500	-0.207	0.214	0.227	0.208	0.194	0.137	0.096	6	0.290
-3.000	-0.218	0.214	0.214	0.208	0.153	0.170	0.205	7	-0.168
-2.750	-0.216	0.233	0.223	0.197	0.137	0.188	0.225	8	-0.154
-2.500	-0.212	0.219	0.216	0.184	0.132	0.210	0.236	9	-0.162
-2.250	-0.229	0.213	0.203	0.149	0.135	0.230	0.240	10	-0.183
-2.000	-0.199	0.198	0.177	0.126	0.152	0.255	0.237	11	-0.242
-1.750	-0.169	0.165	0.146	0.128	0.184	0.281	0.216	12	-0.424
-1.500	-0.125	0.125	0.121	0.142	0.222	0.296	0.157	13	0.419
-1.250	-0.094	0.134	0.146	0.178	0.260	0.304	0.129	14	0.419
-1.000	-0.162	0.176	0.187	0.239	0.289	0.308	0.168	15	0.414
-0.750	-0.245	0.261	0.263	0.286	0.301	0.313	0.307	16	0.402
-0.625	-0.286	0.312	0.284	0.302	0.315	0.315	0.390	17	0.366
-0.500	-0.311	0.302	0.286	0.302	0.315	0.311	0.428	18	0.180
-0.375	-0.318	0.336	0.326	0.321	0.322	0.325	0.432	19	-0.372
-0.250	-0.325	0.330	0.316	0.336	0.329	0.329	0.431	20	-0.316
-0.125	-0.330		0.325		0.329		0.430	21	-0.317
0.000	-0.331		0.323	0.329	0.329	0.332	0.428	22	-0.314

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Table 14 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.23 \times 10^6$

x, in.	Plate							Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = -75^\circ$									
-6.000	.011	.047	.057	.053	.062	.001		1	.079
-5.500	.017	.063	.058	.053	.053	.004		2	.080
-5.000	.046	.069	.052	.048	.057	.030		3	.081
-4.500	.066	.067	.061	.060	.069	.062		4	.075
-4.000	.069	.064	.059	.053	.074	.078	.010	5	.069
-3.500	.069	.062	.058	.053	.077	.078	.034	6	.047
-3.000	.066	.063	.059	.060	.078	.077	.087	7	.157
-2.750	.061	.082	.063	.057	.076	.077	.103	8	.041
-2.500	.063	.062	.061	.061	.078	.077	.109	9	.117
-2.250	.083	.064	.062	.060	.075	.078	.109	10	.176
-2.000	.063	.059	.066	.063	.072	.077	.105	11	.172
-1.750	.069	.066	.061	.066	.065	.079	.103	12	.107
-1.500	.071	.059	.064	.065	.065	.077	.101	13	.105
-1.250	.048	.066	.062	.057	.057	.079	.096	14	.103
-1.000	.064	.058	.055	.057	.052	.079	.089	15	.102
-0.750	.056	.061	.053	.055	.077	.079	.086	16	.089
-0.625	.063	.073	.058	.056	.083	.081	.092	17	.063
-0.500	.073	.068	.053	.053	.077	.086	.098	18	.059
-0.375	.073	.081	.070	.087	.093	.089	.104	19	.120
-0.250	.076	.076	.078	.089	.090	.089	.109	20	.061
-0.125	.085	.084	.089	.085	.085	.113	.113	21	.140
.000	.068	.085	.089	.087	.093	.092	.113	22	.309
.250	.063	.019	-.005	-.010					.131
.375	.031	-.028	-.027	-.021	-.013				.122
.500	.043	-.063	-.047	-.029	-.011				.122
.750	.063	-.077	-.073	-.053	-.018	.005			.115
1.000	.048	-.021	-.057	-.017	-.116	-.073	-.053		
1.250	.004	-.067	-.149	-.200	-.232	-.200	-.075		
1.500	.021	-.046	-.139	-.147	-.207	-.241	-.057		
1.750	.019	-.108	-.094	-.095	-.156	-.237	-.029		
2.000	.033	-.082	-.044	-.071	-.128	-.206	-.029		
2.250	.057	-.052	-.050	-.042	-.120	-.210	-.028		
2.500	.061	-.033	-.008	-.000	-.028	-.334	-.023		
2.750	.041	-.026	-.005	-.040	-.054	-.011	-.026		
3.000	.038	-.017	-.008	-.028	-.017	-.020	-.042		
3.250	.019	.000	-.003	-.031	-.046	-.042			
4.000	.005	-.005	-.018	-.011	-.012	-.022			
4.500	.006	-.014	-.019	-.037	-.042	-.038			
5.000	.011	-.014	-.074	-.108	-.162	-.268			
5.500	-.006	-.027	-.071	-.041	-.066	-.225			
6.000	-.006	-.063	-.023	-.018	-.026	-.079			

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Table 15
Plate and Spoiler Pressure Coefficients
Configuration 8 $M = 1.61$ $R = 0.30 \times 10^6$

x , in.	Plate							Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = 00^\circ$								
-6.000	-005	-006	-000	-002	-270	-228		1 -542
-5.500	-006	-004	-002	-142	-308	-227		2 -466
-5.000	-002	-007	-056	-306	-324	-224		3 -442
-4.500	-118	-156	-299	-355	-335	-208		4 -469
-4.000	-325	-331	-358	-363	-350	-193	-333	5 -536
-3.500	-367	-349	-379	-375	-360	-213	-375	6 -627
-3.000	-379	-382	-390	-388	-362	-255	-391	7 -504
-2.750	-385	-397	-398	-391	-358	-277	-393	8 -355
-2.500	-386	-390	-399	-390	-350	-298	-397	9 -357
-2.250	-403	-401	-402	-394	-343	-321	-394	10 -358
-2.000	-395	-397	-397	-378	-333	-344	-397	11 -356
-1.750	-394	-399	-390	-365	-331	-371	-397	12 -557
-1.500	-388	-387	-371	-352	-335	-400	-385	13 -471
-1.250	-356	-366	-353	-338	-349	-435	-367	14 -451
-1.000	-352	-347	-344	-342	-374	-484	-352	15 -488
-0.750	-342	-343	-357	-369	-411	-534	-345	16 -571
-0.625	-352	-355	-370	-390	-442	-562	-352	17 -696
-0.500	-374	-374	-397	-426	-482	-591	-373	18 -756
-0.375	-409	-414	-438	-469	-528	-617	-406	19 -354
-0.250	-468	-477	-505	-537	-589	-623	-484	20 -358
-0.125	-579	-602	-602	-618	-600	-600	-600	21 -357
0.000	-587	-589	-596	-592	-591	-590	-603	22 -356
$\Delta = 15^\circ$								
-6.000	-007	-005	.003	.005	.016	-224		1 -444
-5.500	-003	-005	.000	.005	.251	.249		2 -388
-5.000	-001	-003	.033	.223	.322	.249		3 -372
-4.500	.218	.207	.290	.345	.342	.245		4 -386
-4.000	.333	.339	.360	.363	.362	.175	.330	5 -422
-3.500	.356	.368	.376	.379	.346	.191	.356	6 -495
-3.000	.364	.372	.383	.378	.297	.235	.369	7 -293
-2.750	.368	.390	.390	.362	.283	.258	.372	8 -360
-2.500	.359	.381	.387	.348	.274	.280	.377	9 -360
-2.250	.380	.387	.374	.328	.274	.310	.375	10 -353
-2.000	.369	.374	.361	.310	.279	.337	.381	11 -353
-1.750	.368	.365	.346	.305	.286	.369	.381	12 -517
-1.500	.355	.351	.331	.305	.300	.394	.377	13 -453
-1.250	.321	.337	.320	.297	.314	.418	.363	14 -437
-1.000	.334	.325	.314	.310	.335	.443	.345	15 -467
-0.750	.324	.314	.323	.332	.367	.472	.338	16 -531
-0.625	.325	.322	.332	.348	.388	.488	.348	17 -621
-0.500	.332	.328	.349	.369	.417	.506	.365	18 -621
-0.375	.355	.357	.375	.406	.453	.523	.400	19 -336
-0.250	.395	.404	.425	.456	.498	.521	.461	20 -338
-0.125	.485	.500	.519	.510	.512	.510	.544	21 -337
0.000	.504	.504	.514	.510	.512	.510	.546	22 -333
$\Delta = 15^\circ$								
-6.000	-007	-005	.003	.005	.016	-224		1 -444
-5.500	-003	-005	.000	.005	.251	.249		2 -388
-5.000	-001	-003	.033	.223	.322	.249		3 -372
-4.500	.218	.207	.290	.345	.342	.245		4 -386
-4.000	.333	.339	.360	.363	.362	.175	.330	5 -422
-3.500	.356	.368	.376	.379	.346	.191	.356	6 -495
-3.000	.364	.372	.383	.378	.297	.235	.369	7 -293
-2.750	.368	.390	.390	.362	.283	.258	.372	8 -360
-2.500	.359	.381	.387	.348	.274	.280	.377	9 -360
-2.250	.380	.387	.374	.328	.274	.310	.375	10 -353
-2.000	.369	.374	.361	.310	.279	.337	.381	11 -353
-1.750	.368	.365	.346	.305	.286	.369	.381	12 -517
-1.500	.355	.351	.331	.305	.300	.394	.377	13 -453
-1.250	.321	.337	.320	.297	.314	.418	.363	14 -437
-1.000	.334	.325	.314	.310	.335	.443	.345	15 -467
-0.750	.324	.314	.323	.332	.367	.472	.338	16 -531
-0.625	.325	.322	.332	.348	.388	.488	.348	17 -621
-0.500	.332	.328	.349	.369	.417	.506	.365	18 -621
-0.375	.355	.357	.375	.406	.453	.523	.400	19 -336
-0.250	.395	.404	.425	.456	.498	.521	.461	20 -338
-0.125	.485	.500	.519	.510	.512	.510	.544	21 -337
0.000	.504	.504	.514	.510	.512	.510	.546	22 -333

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Table 15 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.30 \times 10^6$

x, in.	Plate							Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.
$\Delta = 30^\circ$								
-6.000	-0.006	0.000	-0.001	0.001	0.007	0.004		1 .562
-5.500	-0.007	-0.006	0.000	0.000	0.009	0.078		2 .481
-5.000	.010	-0.002	-0.003	-0.001	.113	.266		3 .404
-4.500	.250	.132	.118	.234	.320	.294		4 .409
-4.000	.332	.320	.328	.342	.359	.260		5 .487
-3.500	.349	.356	.368	.365	.364	.177		6 .655
-3.000	.351	.363	.375	.365	.268	.208		7 .359
-2.750	.356	.374	.376	.344	.231	.217		8 .390
-2.500	.346	.358	.355	.297	.216	.241		9 .405
-2.250	.337	.339	.319	.251	.204	.297		10 .415
-2.000	.298	.299	.275	.218	.205	.376		11 .357
-1.750	.259	.254	.228	.202	.208	.475		12 .295
-1.500	.219	.217	.205	.189	.223	.553		13 .280
-1.250	.200	.192	.197	.194	.264	.611		14 .297
-1.000	.184	.185	.199	.222	.339	.655		15 .339
-0.750	.193	.204	.232	.285	.444	.689		16 .388
-0.625	.220	.241	.271	.347	.505	.694		17 .381
-0.500	.253	.298	.339	.428	.566	.698		18 .312
-0.375	.370	.389	.437	.520	.623	.688		19 .309
-0.250	.486	.505	.546	.598	.659	.655		20 .301
-0.125	.618			.640		.633		21 .298
0.000	.603			.608		.609		22 .298
$\Delta = 45^\circ$								
.250	-0.390	-0.381	-0.369	-0.360				-0.310
.375	-0.401	-0.393	-0.378	-0.363	-0.348			-0.316
.500	-0.422	-0.412	-0.394	-0.366	-0.347			-0.314
.750	-0.406	-0.401	-0.379	-0.348		-0.324		-0.313
1.000	-0.361	-0.342	-0.389	-0.384	-0.351	-0.313		-0.313
1.250	-0.325	-0.327	-0.353	-0.357	-0.346	-0.306		-0.304
1.500	-0.291	-0.281	-0.312	-0.338	-0.342	-0.306		-0.287
1.750	-0.200	-0.238	-0.270	-0.319	-0.335	-0.304		-0.264
2.000	-0.205	-0.201	-0.220	-0.293	-0.325	-0.304		-0.234
2.250	-0.174	-0.171	-0.201	-0.270	-0.312	-0.302		-0.210
2.500	-0.152	-0.148	-0.181	-0.247	-0.303	-0.302		-0.186
2.750	-0.133	-0.126	-0.156	-0.230	-0.292	-0.305		-0.162
3.000	-0.111	-0.113	-0.137	-0.200	-0.279	-0.311		-0.138
3.500	-0.052	-0.092	-0.104	-0.165	-0.253	-0.301		
4.000	.038	-0.071	-0.085	-0.136	-0.227	-0.298		
4.500	.070	-0.043	-0.072	-0.109	-0.202	-0.295		
5.000	.051	-0.012	-0.059	-0.093	-0.181	-0.286		
5.500	.034	.029	-0.050	-0.079	-0.168	-0.274		
6.000	.029	.057	.042	-0.062	-0.154	-0.261		

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Table 15 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.30 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = 60^\circ$										
-6.000	-0.002	0.002	-0.007	0.006	0.012	0.005		1	+429	
-5.500	-0.001	-0.001	-0.007	0.002	0.011	0.005		2	+431	
-5.000	-0.001	-0.002	-0.010	0.001	0.008	0.000		3	+426	
-4.500	.001	-0.005	-0.005	0.007	0.007	0.002		4	+421	
-4.000	.013	-0.001	-0.004	0.004	0.010	0.177	+207	5	+414	
-3.500	.147	.053	.020	.056	.219	.332	+225	6	+385	
-3.000	.220	.209	.210	.248	.302	.202	+232	7	+193	
-2.750	.238	.246	.243	.270	.307	.185	+229	8	+347	
-2.500	.245	.249	.260	.275	.284	.231	+230	9	+387	
-2.250	.254	.251	.259	.277	.201	.320	+230	10	+405	
-2.000	.244	.253	.260	.249	.162	.412	+222	11	+436	
-1.750	.235	.241	.232	.180	.185	.495	.199	12	+327	
-1.500	.187	.188	.163	.158	.248	.527	.161	13	+328	
-1.250	.109	.138	.151	.192	.354	.524	.139	14	+334	
-1.000	.146	.167	.208	.293	.456	.509	.154	15	+341	
-0.750	.250	.284	.338	.415	.488	.495	.209	16	+346	
-0.625	.343	.372	.401	.451	.476	.478	.250	17	+331	
-0.500	.410	.402	.431	.458	.466	.467	.285	18	+185	
-0.375	.419	.457	.442	.453	.464	.460	.313	19	+365	
-0.250	.445	.430	.438	.443	.453	.451	.327	20	+345	
-0.125	.442		.441			.448	.333	21	+266	
0.000	.428	.420	.428	.430	.431	.426	.331	22	+251	
+2.50	+0.352	+0.354	+0.336	+0.323			+364			
+3.75	+0.382	+0.389	+0.363	+0.342	+0.322		+364			
+5.00	+0.420	+0.424	+0.409	+0.379	+0.331		+372			
+7.50	+0.389	+0.428	+0.438	+0.423	+0.377	+0.337	+321			
1.000	+0.298	+0.355	+0.415	+0.433	+0.402	+0.271	+295			
1.250	+0.163	+0.281	+0.373	+0.423	+0.370	+0.246	+230			
1.500	+0.029	+0.159	+0.293	+0.397	+0.335	+0.245	+243			
1.750	.056	.065	.182	.350	.304	.251	+338			
2.000	.043	.022	.062	.299	.290	.264	+207			
2.250	.037	.004	.011	.235	.279	.293	+070			
2.500	.019	-0.001	.022	.154	.276	.328	+005			
2.750	.007	-0.001	.033	.071	.296	.368	+038			
3.000	-0.010	-0.001	.035	.011	.334	.310	+042			
3.500	-0.033	-0.007	.028	.033	.311	.310				
4.000	-0.052	-0.001	.016	.039	.241	.341				
4.500	-0.055	-0.001	.005	.050	.369	.346				
5.000	-0.048	-0.005	.006	.047	.073	.307				
5.500	-0.039	-0.000	.009	.039	.029	.300				
6.000	-0.034	-0.002	.009	.034	.019	.288				
$\Delta = 75^\circ$										
-6.000	.010	.000	.000	.004	.010	.005		1	+122	
-5.500	.010	-0.001	-0.004	-0.002	.010	.006		2	+127	
-5.000	.008	-0.003	-0.003	-0.004	.008	.000		3	+125	
-4.500	.007	-0.002	-0.003	.005	.008	.003		4	+117	
-4.000	.014	-0.000	-0.002	.000	.007	.006		5	+106	
-3.500	.046	.009	.002	.006	.021	.181	.087	6	+084	
-3.000	.097	.067	.051	.078	.154	.225	.083	7	+280	
-2.750	.110	.107	.101	.125	.183	.214	.084	8	+134	
-2.500	.118	.120	.129	.146	.186	.196	.084	9	+212	
-2.250	.130	.126	.139	.156	.175	.189	.081	10	+298	
-2.000	.122	.126	.141	.150	.165	.181	.080	11	+345	
-1.750	.121	.126	.135	.154	.151	.179	.080	12	+101	
-1.500	.120	.121	.129	.139	.143	.174	.079	13	+103	
-1.250	.084	.115	.121	.119	.145	.172	.080	14	+106	
-1.000	.103	.104	.116	.129	.149	.162	.072	15	+106	
-0.750	.101	.109	.124	.134	.151	.161	.071	16	+106	
-0.625	.099	.126	.125	.136	.152	.156	.075	17	+095	
-0.500	.114	.125	.128	.144	.151	.155	.082	18	+028	
-0.375	.117	.143	.132	.145	.155	.152	.091	19	+218	
-0.250	.142	.126	.134	.146	.150	.147	.099	20	+195	
-0.125	.136	.137	.137	.143	.143	.105		21	+165	
0.000	.132	.129	.135	.132	.139	.103		22	+066	
+2.50	+0.125	+0.117	+0.098	+0.087			+246			
+3.75	+0.143	+0.147	+0.132	+0.106	+0.085		+228			
+5.00	+0.149	+0.158	+0.155	+0.128	+0.091		+218			
+7.50	+0.107	+0.144	+0.147	+0.140	+0.095	+0.037	+234			
1.000	+0.052	-0.083	+0.118	-0.106	-0.062	.029	+133			
1.250	.101	-0.043	-0.088	-0.045	-0.085	.030	+035			
1.500	.092	-0.037	-0.066	.028	.067	.032	+022			
1.750	.039	-0.050	-0.058	.054	.053	.051	.009			
2.000	.051	-0.056	-0.038	.048	.036	.092	.022			
2.250	.047	-0.055	-0.050	.042	.011	.111	.029			
2.500	.047	-0.055	-0.048	.035	.020	.100	.029			
2.750	.053	-0.050	-0.036	.034	.057	.055	.028			
3.000	.067	-0.047	-0.037	.032	.067	.112	.022			
3.500	.056	-0.045	-0.025	.028	.036	.206				
4.000	.056	-0.041	-0.021	.026	.017	.190				
4.500	.068	-0.048	-0.020	.028	.017	.134				
5.000	.042	-0.049	-0.014	.031	.018	.136				
5.500	.018	-0.039	-0.011	.031	.024	.119				
6.000	.008	-0.030	-0.006	.028	.003	.048				

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Table 15 Continued
Plate and Spoiler Pressure Coefficients
Configuration 8 M = 1.61 R = 0.30 × 10⁶

x, in.	Plate								Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9			
$\Delta = -15^\circ$										
-6.000	-0.004	-0.002	-0.005	-0.001	-0.189	-0.295	-0.195	1	.505	
-5.500	-0.002	-0.005	-0.025	-0.257	-0.311	-0.305	-0.186	2	.447	
-5.000	-0.026	-0.049	-0.277	-0.319	-0.340	-0.319	-0.177	3	.431	
-4.500	-0.261	-0.277	-0.331	-0.345	-0.348	-0.332	-0.190	4	.458	
-4.000	-0.326	-0.331	-0.345	-0.359	-0.358	-0.345	-0.231	5	.511	
-3.500	-0.347	-0.352	-0.345	-0.359	-0.358	-0.352	-0.275	6	.606	
-3.000	-0.358	-0.361	-0.365	-0.374	-0.374	-0.352	-0.295	7	.401	
-2.500	-0.360	-0.373	-0.374	-0.375	-0.375	-0.350	-0.291	8	.344	
-2.000	-0.361	-0.369	-0.378	-0.378	-0.378	-0.344	-0.308	9	.346	
-1.500	-0.368	-0.372	-0.378	-0.378	-0.378	-0.337	-0.321	10	.347	
-1.000	-0.373	-0.378	-0.378	-0.378	-0.378	-0.330	-0.340	11	.344	
-0.500	-0.375	-0.372	-0.371	-0.366	-0.350	-0.362	-0.351	12	.429	
-0.250	-0.352	-0.362	-0.355	-0.348	-0.348	-0.336	-0.341	13	.397	
-0.125	-0.347	-0.346	-0.344	-0.340	-0.340	-0.326	-0.345	14	.376	
-0.0625	-0.333	-0.334	-0.350	-0.365	-0.365	-0.405	-0.493	15	.401	
-0.03125	-0.347	-0.350	-0.343	-0.386	-0.386	-0.429	-0.514	16	.442	
-0.015625	-0.350	-0.357	-0.386	-0.411	-0.411	-0.463	-0.537	17	.508	
-0.0078125	-0.365	-0.357	-0.386	-0.411	-0.411	-0.463	-0.537	18	.566	
-0.00390625	-0.375	-0.391	-0.402	-0.423	-0.423	-0.447	-0.498	19	.355	
-0.001953125	-0.375	-0.449	-0.452	-0.470	-0.470	-0.505	-0.547	20	.360	
-0.0009765625	-0.354	-0.560	-0.560	-0.555	-0.555	-0.562	-0.566	21	.359	
-0.00048828125	-0.000	-0.554	-0.553	-0.555	-0.555	-0.562	-0.557	22	-0.356	
$\Delta = -30^\circ$										
-6.000	-0.002	-0.016	-0.231	-0.261	-0.235	-0.125	-0.339	1	.357	
-5.500	-0.068	-0.209	-0.274	-0.279	-0.234	-0.126	-0.353	2	.290	
-5.000	-0.269	-0.286	-0.294	-0.271	-0.234	-0.128	-0.361	3	.263	
-4.500	-0.317	-0.307	-0.302	-0.281	-0.239	-0.142	-0.364	4	.277	
-4.000	-0.330	-0.316	-0.299	-0.271	-0.247	-0.172	-0.341	5	.317	
-3.500	-0.328	-0.314	-0.297	-0.280	-0.254	-0.200	-0.353	6	.380	
-3.000	-0.316	-0.308	-0.296	-0.282	-0.259	-0.217	-0.361	7	.202	
-2.500	-0.321	-0.316	-0.295	-0.279	-0.259	-0.221	-0.355	8	.289	
-2.000	-0.314	-0.305	-0.294	-0.276	-0.254	-0.225	-0.345	9	.288	
-1.500	-0.297	-0.297	-0.287	-0.269	-0.246	-0.226	-0.319	10	.283	
-1.000	-0.290	-0.285	-0.277	-0.259	-0.239	-0.228	-0.286	11	.264	
-0.500	-0.274	-0.248	-0.266	-0.287	-0.235	-0.251	-0.351	12	.634	
-0.250	-0.216	-0.221	-0.239	-0.269	-0.233	-0.352	-0.155	13	.543	
-0.125	-0.193	-0.197	-0.206	-0.242	-0.309	-0.352	-0.130	14	.458	
-0.0625	-0.174	-0.172	-0.186	-0.218	-0.288	-0.352	-0.112	15	.488	
-0.03125	-0.135	-0.135	-0.134	-0.162	-0.244	-0.351	16	.609		
-0.015625	-0.102	-0.099	-0.100	-0.117	-0.211	-0.342	17	.786		
-0.0078125	-0.084	-0.073	-0.071	-0.088	-0.177	-0.331	18	.823		
-0.00390625	-0.064	-0.057	-0.048	-0.067	-0.136	-0.314	19	.426		
-0.001953125	-0.058	-0.041	-0.035	-0.057	-0.111	-0.292	20	.429		
-0.0009765625	-0.042	-0.028	-0.026	-0.039	-0.030	-0.273	21	.427		
-0.00048828125	-0.000	-0.400	-0.400	-0.404	-0.404	-0.404	-0.656	22	-0.410	

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Table 15 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.30 \times 10^6$

x, in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	Spoiler
$\Delta = -45^\circ$									
-6,000	.001	.076	.246	.262	.220	.070		1	.367
-5,500	.047	.222	.267	.266	.229	.051		2	.346
-5,000	.234	.271	.278	.262	.238	.032		3	.314
-4,500	.281	.283	.282	.274	.241	.039		4	.302
-4,000	.297	.290	.276	.274	.239	.077	.254	5	.334
-3,500	.298	.283	.281	.267	.219	.114	.314	6	.403
-3,000	.293	.285	.271	.240	.182	.117	.326	7	.173
-2,750	.291	.290	.263	.225	.169	.125	.327	8	-.238
-2,500	.278	.268	.244	.203	.159	.130	.323	9	-.254
-2,250	.264	.247	.220	.175	.139	.139	.301	10	-.246
-2,000	.228	.216	.197	.155	.127	.151	.265	11	-.238
-1,750	.198	.181	.170	.151	.129	.174	.219	12	.666
-1,500	.163	.149	.141	.137	.147	.206	.190	13	.663
-1,250	.126	.134	.122	.129	.167	.254	.179	14	.666
-1,000	.136	.134	.131	.144	.199	.293	.196	15	.695
-.750	.159	.154	.168	.183	.241	.322	.277	16	.720
-.625	.188	.179	.198	.220	.278	.345	.369	17	.726
-.500	.226	.219	.235	.271	.322	.359	.479	18	.595
-.375	.286	.278	.310	.327	.355	.366	.587	19	-.449
-.250	.342	.340	.345	.365	.379	.372	.654	20	-.453
-.125	.389		.385		.381		.673	21	-.445
+.000	.384	.383	.392	.388	.390	.390	.662	22	-.420
$\Delta = -60^\circ$									
-6,000	.005	.019	.146	.199	.205	.027		1	.330
-5,500	.007	.065	.179	.207	.211	.041		2	.329
-5,000	.039	.142	.198	.209	.212	.058		3	.331
-4,500	.134	.184	.211	.222	.218	.105		4	.329
-4,000	.191	.210	.221	.218	.214	.126	.007	5	.319
-3,500	.214	.219	.222	.219	.204	.145	.101	6	.289
-3,000	.225	.223	.221	.215	.161	.178	.211	7	-.159
-2,750	.222	.229	.224	.209	.141	.198	.230	8	-.140
-2,500	.221	.220	.219	.192	.134	.221	.240	9	-.151
-2,250	.229	.217	.206	.160	.139	.244	.237	10	-.183
-2,000	.207	.201	.181	.134	.159	.264	.240	11	-.242
-1,750	.176	.168	.141	.132	.194	.288	.214	12	.423
-1,500	.130	.124	.125	.152	.234	.300	.151	13	.418
-1,250	.109	.132	.144	.193	.271	.308	.132	14	.419
-1,000	.173	.180	.206	.256	.288	.311	.175	15	.416
-.750	.259	.273	.279	.301	.312	.312	.326	16	.399
-.625	.299	.312	.300	.313	.318	.314	.407	17	.366
-.500	.316	.315	.303	.314	.320	.318	.432	18	.195
-.375	.325	.332	.338	.327	.330	.321	.434	19	-.397
-.250	.328	.324	.322	.336	.332	.330	.432	20	-.330
-.125	.331		.332		.333		.431	21	-.342
+.000	.346	.346	.349	.349	.353	.349	.427	22	-.333
$\Delta = -134^\circ$									
-.250	-.141	-.139	-.134	-.134	-.151		-.409		
-.375	-.127	-.134	-.141	-.154	-.186		-.417		
-.500	-.156	-.158	-.172	-.178	-.186		-.409		
-.750	-.288	-.300	-.296	-.272	-.241	-.241	-.379		
1,000	-.314	-.321	-.355	-.355	-.306	-.298	-.286		
1,250	-.386	-.412	-.411	-.405	-.386	-.354	-.206		
1,500	-.373	-.376	-.389	-.393	-.421	-.387	-.134		
1,750	-.236	-.279	-.314	-.371	-.408	-.414	-.078		
2,000	-.188	-.151	-.197	-.316	-.383	-.413	-.045		
2,250	-.110	-.054	-.111	-.236	-.374	-.417	-.037		
2,500	-.067	-.007	-.059	-.144	-.306	-.396	-.023		
2,750	-.038	.016	.025	.072	.195	.328	.009		
3,000	-.023	.000	.019	-.005	-.070	.340	-.005		
3,500	.004	-.020	.004	.057	-.089	.283			
4,000	.010	-.091	.028	-.013	-.021	.093			
4,500	.010	.001	-.002	.008	-.013	.047			
5,000	.000	.012	-.001	-.008	-.075	.137			
5,500	-.010	.023	.002	.084	.162	.354			
6,000	.002	.010	-.032	-.076	-.095	.187			

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Table 15 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.30 \times 10^6$

	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = -75^\circ$									
-6.000	.013	.050	.059	.051	.062	.001		1	.074
-5.000	.024	.057	.061	.050	.062	.001		2	.074
-5.000	.055	.070	.055	.045	.063	.028		3	.075
-4.500	.077	.063	.056	.054	.066	.056		4	.071
-4.000	.079	.064	.060	.051	.070	.072	.010	5	.062
-3.500	.072	.060	.060	.058	.072	.073	.034	6	.040
-3.000	.064	.060	.057	.057	.073	.070	.088	7	.145
-2.750	.052	.077	.063	.058	.073	.072	.099	8	.104
-2.500	.063	.061	.062	.057	.073	.074	.106	9	.073
-2.250	.078	.061	.060	.058	.072	.075	.099	10	.151
-2.000	.061	.063	.061	.061	.066	.076	.099	11	.161
-1.750	.059	.065	.064	.068	.059	.079	.094	12	.102
-1.500	.066	.062	.059	.062	.057	.074	.092	13	.102
-1.250	.041	.064	.061	.054	.062	.073	.087	14	.100
-1.000	.057	.053	.054	.058	.055	.073	.081	15	.095
-0.750	.059	.060	.054	.062	.071	.075	.084	16	.084
-0.625	.066	.073	.058	.067	.076	.073	.088	17	.063
-0.500	.067	.067	.062	.059	.074	.075	.092	18	.046
-0.375	.068	.077	.087	.085	.086	.079	.098	19	.113
-0.250	.077	.071	.072	.087	.084	.081	.103	20	.050
-0.125	.082	.080	.085	.085	.085	.106		21	.128
0.000	.092	.090	.095	.094	.097	.094	.105	22	.311
+250	.120	.085	.043	.025			.114		
+375	.108	.032	-.001	-.007	-.007				
+500	.006	-.049	-.048	-.026	-.002				
+750	-.066	-.059	-.059	-.050	-.014	.005	.105		
1.000	-.045	-.014	-.035	-.071	-.088	-.067	-.040		
1.250	.011	-.059	-.162	-.191	-.221	-.183	-.073		
1.500	-.012	-.088	-.137	-.134	-.196	-.234	-.057		
1.750	.002	-.101	-.085	-.093	-.149	-.240	-.024		
2.000	-.042	-.075	-.059	-.073	-.121	-.207	-.020		
2.250	-.064	-.048	-.056	-.047	-.115	-.183	-.029		
2.500	-.058	-.044	-.015	.000	-.028	-.339	-.020		
2.750	-.041	-.022	-.004	.034	.050	-.005	-.026		
3.000	-.033	-.017	-.011	.026	-.013	-.005	-.045		
3.500	-.019	.000	-.000	-.033	-.044	-.032			
4.000	-.004	.001	-.014	-.011	-.016	-.022			
4.500	.010	-.011	-.019	-.039	-.042	-.047			
5.000	.010	-.009	-.078	-.100	-.155	-.292			
5.500	-.002	-.032	-.062	-.037	-.062	-.222			
6.000	-.003	-.061	-.015	.022	-.029	-.075			

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Table 16
Plate and Spoiler Pressure Coefficients
Configuration 8 $M = 1.61$ $R = 0.45 \times 10^6$

x, in.	Plate								Orifice No.	Spoiler
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9			
$\Delta = 00^\circ$										
-6.000	.011	.009	.006	.014	.275	.245				.501
-5.500	.010	.009	.006	.109	.321	.244				.485
-5.000	.012	.008	.034	.314	.341	.245				.462
-4.500	.078	.128	.293	.367	.258	.233				.492
-4.000	.330	.337	.371	.386	.375	.217				.560
-3.500	.386	.386	.394	.395	.385	.236				.669
-3.000	.406	.405	.405	.411	.307	.280				.508
-2.750	.411	.411	.412	.416	.382	.299				.407
-2.500	.415	.415	.414	.418	.376	.319				.350
-2.250	.422	.418	.417	.409	.366	.343				.351
-2.000	.421	.420	.424	.399	.358	.364				.349
-1.750	.423	.417	.408	.389	.357	.393				.586
-1.500	.413	.406	.394	.373	.361	.420				.494
-1.250	.380	.390	.375	.360	.373	.452				.473
-1.000	.378	.373	.365	.368	.392	.494				.518
-0.750	.369	.368	.374	.386	.430	.547				.603
-0.625	.379	.375	.387	.407	.461	.576				.735
-0.500	.400	.394	.424	.441	.497	.607				.801
-0.375	.430	.432	.452	.483	.545	.636				.435
-0.250	.491	.494	.516	.548	.609	.642				.350
-0.125	.598									.355
.000	.611	.609	.616	.613	.616	.614				.352
$\Delta = 15^\circ$										
-6.000	.001	.002	.007	.005	.020	.231				.467
-5.500	.001	.002	.003	.007	.242	.261				.408
-5.000	.005	.002	.012	.202	.334	.285				.393
-4.500	.174	.166	.264	.349	.357	.267				.412
-4.000	.337	.342	.365	.384	.379	.195				.452
-3.500	.375	.381	.390	.399	.369	.208				.523
-3.000	.384	.390	.398	.404	.322	.252				.307
-2.750	.387	.394	.403	.390	.308	.276				.354
-2.500	.389	.398	.401	.373	.300	.298				.353
-2.250	.395	.396	.394	.355	.295	.324				.353
-2.000	.389	.389	.380	.338	.301	.353				.347
-1.750	.388	.381	.366	.331	.307	.383				.535
-1.500	.378	.370	.354	.322	.319	.406				.470
-1.250	.356	.359	.344	.323	.334	.431				.455
-1.000	.360	.350	.338	.328	.355	.460				.484
-0.750	.342	.338	.340	.344	.387	.491				.549
-0.625	.347	.341	.348	.359	.406	.505				.639
-0.500	.353	.349	.365	.385	.434	.524				.666
-0.375	.372	.377	.393	.418	.470	.543				.345
-0.250	.416	.419	.441	.466	.516	.545				.347
-0.125	.504		.517	.540	.540	.566				.348
.000	.522	.520	.523	.521	.527	.525				.346
$\Delta = 15^\circ$										
-6.000	.001	.002	.003	.007	.020	.231				.467
-5.500	.001	.002	.012	.202	.334	.285				.408
-5.000	.005	.002	.012	.202	.334	.285				.393
-4.500	.174	.166	.264	.349	.357	.267				.412
-4.000	.337	.342	.365	.384	.379	.195				.452
-3.500	.375	.381	.390	.399	.369	.208				.523
-3.000	.384	.390	.398	.404	.322	.252				.307
-2.750	.387	.394	.403	.390	.308	.276				.354
-2.500	.389	.398	.401	.373	.300	.298				.353
-2.250	.395	.396	.394	.355	.295	.324				.353
-2.000	.389	.389	.380	.338	.301	.353				.347
-1.750	.388	.381	.366	.331	.307	.383				.535
-1.500	.378	.370	.354	.322	.319	.406				.470
-1.250	.356	.359	.344	.323	.334	.431				.455
-1.000	.360	.350	.338	.328	.355	.460				.484
-0.750	.342	.338	.340	.344	.387	.491				.549
-0.625	.347	.341	.348	.359	.406	.505				.639
-0.500	.353	.349	.365	.385	.434	.524				.666
-0.375	.372	.377	.393	.418	.470	.543				.345
-0.250	.416	.419	.441	.466	.516	.545				.347
-0.125	.504		.517	.540	.540	.566				.348
.000	.522	.520	.523	.521	.527	.525				.346
$\Delta = 15^\circ$										
-6.000	.001	.002	.003	.007	.020	.231				.467
-5.500	.001	.002	.012	.202	.334	.285				.408
-5.000	.005	.002	.012	.202	.334	.285				.393
-4.500	.174	.166	.264	.349	.357	.267				.412
-4.000	.337	.342	.365	.384	.379	.195				.452
-3.500	.375	.381	.390	.399	.369	.208				.523
-3.000	.384	.390	.398	.404	.322	.252				.307
-2.750	.387	.394	.403	.390	.308	.276				.354
-2.500	.389	.398	.401	.373	.300	.298				.353
-2.250	.395	.396	.394	.355	.295	.324				.353
-2.000	.389	.389	.380	.338	.301	.353				.347
-1.750	.388	.381	.366	.331	.307	.383				.535
-1.500	.378	.370	.354	.322	.319	.406				.470
-1.250	.356	.359	.344	.323	.334	.431				.455
-1.000	.360	.350	.338	.328	.355	.460				.484
-0.750	.342	.338	.340	.344	.387	.491				.549
-0.625	.347	.341	.348	.359	.406	.505				.639
-0.500	.353	.349	.365	.385	.434	.524				.666
-0.375	.372	.377	.393	.418	.470	.543				.345
-0.250	.416	.419	.441	.466	.516	.545				.347
-0.125	.504		.517	.540	.540	.566				.348
.000	.522	.520	.523	.521	.527	.525				.346

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Table 16 Continued

Plate and Spoiler Pressure Coefficients

Configuration 8

M = 1.61

R = 0.45 × 10⁶

x, in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Spoiler Orifice No.
$\Delta = 30^\circ$								
-6.000	.009	.009	.011	.011	.014	.010		1 .568
-5.500	.009	.009	.009	.011	.015	.078		2 .480
-5.000	.014	.009	.009	.006	.109	.275		3 .405
-4.500	.245	.105	.089	.224	.331	.305		4 .415
-4.000	.348	.326	.336	.356	.377	.279	.340	5 .493
-3.500	.371	.373	.383	.389	.392	.189	.339	6 .634
-3.000	.375	.383	.395	.395	.301	.222	.336	7 .363
-2.750	.380	.391	.397	.372	.255	.232	.338	8 .363
-2.500	.376	.382	.381	.330	.233	.246	.337	9 .384
-2.250	.363	.363	.345	.277	.219	.295	.327	10 .392
-2.000	.331	.326	.301	.238	.216	.366	.320	11 .381
-1.750	.290	.283	.252	.221	.221	.454	.305	12 .370
-1.500	.249	.242	.226	.213	.232	.529	.289	13 .312
-1.250	.205	.217	.213	.213	.266	.600	.270	14 .299
-1.000	.204	.207	.215	.230	.335	.663	.250	15 .316
-.750	.215	.221	.242	.289	.444	.705	.237	16 .354
-.500	.237	.252	.279	.354	.511	.707	.237	17 .403
-.250	.276	.310	.348	.431	.575	.713	.244	18 .385
+.250	.375	.393	.443	.524	.632	.696	.268	19 .312
+.500	.494	.508	.551	.601	.669	.658	.321	20 .312
+.750	.625		.648		.659		.409	21 .311
1.000	.607		.602	.603	.602	.602	.405	22 .315
+.250	-.365	-.358	-.349	-.344			-.310	
+.375	-.371	-.356	-.347	-.344			-.314	
+.500	-.386	-.379	-.366	-.353			-.314	
+.750	-.376	-.378	-.375	-.358			-.314	
1.000	-.338	-.336	-.356	-.360			-.312	
1.250	-.303	-.316	-.324	-.340			-.305	
1.500	-.264	-.265	-.290	-.324			-.282	
1.750	-.204	-.223	-.256	-.298			-.255	
2.000	-.185	-.188	-.218	-.274			-.226	
2.250	-.160	-.158	-.198	-.252			-.200	
2.500	-.141	-.134	-.170	-.230			-.174	
2.750	-.125	-.120	-.150	-.209			-.151	
3.000	-.102	-.105	-.133	-.189			-.131	
3.250	-.047	-.087	-.101	-.156			-.088	
4.000	-.018	-.066	-.082	-.128			-.034	
4.500	.079	-.041	-.066	-.105			-.198	
5.000	.066	-.018	-.053	-.087			-.291	
5.500	.047	-.014	-.044	-.074			-.279	
6.000	.040	-.045	-.036	-.065			-.264	
$\Delta = 45^\circ$								
-6.000	.025	.019	.012	.022	.030	.026		1 .638
-5.500	.022	.018	.013	.019	.031	.028		2 .631
-5.000	.023	.016	.011	.018	.032	.023		3 .617
-4.500	.045	.019	.014	.023	.037	.058		4 .643
-4.000	.278	.149	.076	.165	.316	.371	.323	5 .690
-3.500	.335	.323	.317	.349	.387	.275	.323	6 .737
-3.000	.348	.355	.357	.379	.373	.218	.319	7 .044
-2.750	.350	.355	.366	.383	.303	.235	.319	8 .-395
-2.500	.358	.361	.370	.359	.241	.270	.319	9 .-402
-2.250	.357	.356	.350	.306	.217	.358	.300	10 .-404
-2.000	.327	.327	.307	.242	.216	.476	.279	11 .-399
-1.750	.284	.277	.246	.213	.231	.600	.249	12 .-367
-1.500	.234	.221	.209	.207	.274	.673	.215	13 .-331
-1.250	.195	.196	.200	.227	.370	.716	.183	14 .-292
-1.000	.198	.209	.238	.297	.494	.732	.164	15 .-292
-.750	.257	.277	.335	.431	.613	.727	.171	16 .-338
-.500	.334	.362	.416	.514	.644	.717	.185	17 .-406
-.250	.547	.555	.597	.635	.681	.667	.709	18 .-414
+.250	.621	.619	.640	.659	.682	.678	.347	19 .-314
+.500	.661		.666		.665		.403	20 .-292
+.750	.638	.633	.639	.633	.639	.638	.382	21 .-264
1.000	.638	.633	.639	.633				22 .-254
+.250	-.401	-.404	-.389	-.390			-.310	
+.375	-.409	-.412	-.390	-.387			-.315	
+.500	-.429	-.432	-.411	-.394			-.312	
+.750	-.425	-.445	-.426	-.412			-.293	
1.000	-.376	-.403	-.414	-.398			-.284	
1.250	-.320	-.373	-.403	-.373			-.289	
1.500	-.327	-.339	-.377	-.366			-.318	
1.750	-.290	-.308	-.358	-.357			-.309	
2.000	-.268	-.275	-.327	-.343			-.267	
2.250	-.120	-.256	-.310	-.328			-.272	
2.500	.040	-.202	-.278	-.312			-.280	
2.750	.079	-.038	-.264	-.284			-.293	
3.000	.071	.076	-.246	-.270			-.212	
3.250	.050	.079	-.069	-.215			-.188	
4.000	.035	.064	-.091	.174			-.272	
4.500	.030	.048	-.099	.149			-.293	
5.000	.025	.038	-.089	.122			-.259	
5.500	.017	.033	-.084	.076			-.262	
6.000	.019	.027	-.080	-.004			-.239	

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Table 16 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.45 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = 60^\circ$										
-6.000	.011	.006	.003	.008	.016	.010		1	.433	
-5.500	.007	.006	.003	.009	.010	.006		2	.433	
-5.000	.010	.003	.002	.006	.014	.006		3	.434	
-4.500	.008	.005	.001	.010	.014	.007		4	.430	
-4.000	.016	.004	.001	.008	.014	.007		5	.422	
-3.500	.016	.004	.016	.045	.221	.326		6	.393	
-3.000	.146	.043	.016	.045	.215	.298		7	.399	
-2.500	.234	.234	.215	.252	.284	.310		8	.361	
-2.000	.247	.251	.252	.284	.319	.305		9	.401	
-1.500	.257	.260	.268	.286	.306	.295		10	.409	
-1.250	.260	.263	.272	.292	.313	.295		11	.450	
-1.000	.260	.269	.274	.292	.311	.295		12	.334	
-1.750	.254	.254	.247	.193	.195	.181		13	.332	
-1.500	.208	.206	.177	.166	.259	.180		14	.341	
-1.250	.135	.136	.162	.205	.265	.146		15	.353	
-1.000	.162	.180	.217	.304	.467	.161		16	.355	
-1.750	.264	.295	.348	.432	.495	.499		17	.341	
-1.500	.361	.376	.411	.465	.482	.487		18	.399	
-1.250	.422	.415	.449	.472	.475	.476		19	.366	
-1.000	.435	.456	.458	.466	.469	.469		20	.360	
-1.250	.448	.437	.447	.453	.463	.461		21	.260	
-1.000	.448	.445	.450	.450	.452	.449		22	.254	
-2.500	.349	.349	.337	.332						
-3.75	.377	.380	.358	.344	.321					
-5.000	.434	.434	.408	.373	.333					
-7.500	.394	.421	.449	.441	.376	.341				
1.000	.295	.365	.426	.457	.411	.370				
1.250	.161	.284	.378	.438	.373	.245				
1.500	.026	.157	.297	.409	.336	.235				
1.750	.045	.057	.187	.363	.302	.229				
2.000	.045	.015	.070	.303	.286	.245				
2.250	.040	.001	.004	.237	.276	.272				
2.500	.026	.008	.029	.166	.260	.303				
2.750	.009	.006	.039	.085	.262	.348				
3.000	.006	.006	.038	.016	.309	.330				
3.500	.032	.003	.032	.043	.314	.301				
4.000	.056	.006	.023	.048	.240	.348				
4.500	.055	.003	.015	.058	.168	.345				
5.000	.048	.004	.015	.053	.090	.301				
5.500	.042	.005	.010	.046	.029	.300				
6.000	.031	.005	.011	.042	.014	.286				
$\Delta = 75^\circ$										
-6.000	.012	.001	.001	.006	.008	.002		1	.123	
-5.500	.006	.002	.000	.001	.007	.002		2	.129	
-5.000	.009	.000	-.004	.000	.007	.001		3	.126	
-4.500	.005	.001	-.002	.002	.007	.001		4	.119	
-4.000	.012	.000	-.004	.001	.006	.002		5	.106	
-3.500	.047	.005	.000	.002	.015	.182		6	.087	
-3.000	.100	.066	.046	.072	.155	.231		7	.285	
-2.750	.116	.106	.097	.128	.185	.218		8	.132	
-2.500	.123	.121	.131	.154	.188	.200		9	.221	
-2.250	.128	.129	.142	.160	.178	.192		10	.309	
-2.000	.124	.130	.143	.155	.165	.185		11	.335	
-1.750	.127	.130	.138	.151	.148	.183		12	.102	
-1.500	.122	.124	.132	.141	.146	.176		13	.103	
-1.250	.107	.120	.122	.128	.149	.174		14	.107	
-1.000	.104	.107	.121	.131	.150	.165		15	.110	
-1.750	.107	.110	.131	.137	.154	.162		16	.107	
-6.25	.107	.124	.136	.143	.153	.157		17	.096	
-5.000	.122	.127	.140	.146	.153	.159		18	.028	
-3.75	.125	.142	.142	.149	.158	.156		19	.231	
-2.250	.140	.130	.141	.145	.155	.150		20	.209	
-1.125	.141	.147	.147	.147	.147	.108		21	.174	
.000	.148	.198	.152	.147	.151	.148		22	.080	
-2.500	.122	.115	.095	.091						
-3.75	.145	.159	.130	.110	.090					
-5.000	.148	.161	.155	.131	.098					
-7.50	.111	.147	.150	.146	.103					
1.000	.053	.093	.122	.114	.068	.032				
1.250	.097	.047	.088	.044	.071	.026				
1.500	.092	.039	.068	.037	.079	.023				
1.750	.056	.048	.061	.053	.065	.053				
2.000	.050	.055	.048	.044	.043	.089				
2.250	.048	.050	.047	.038	.020	.108				
2.500	.051	.053	.042	.030	.018	.095				
2.750	.058	.050	.037	.027	.055	.047				
3.000	.069	.047	.035	.029	.063	.123				
3.500	.059	.045	.027	.024	.032	.215				
4.000	.056	.042	.024	.022	.014	.195				
4.500	.070	.047	.019	.026	.012	.146				
5.000	.043	.048	.013	.028	.017	.150				
5.500	.020	.040	.011	.028	.023	.133				
6.000	.004	.033	.007	.026	.002	.059				

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Table 17
Plate and Spoiler Pressure Coefficients
Configuration 8 $M = 1.61$ $R = 0.56 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = 00^\circ$										
-6.000	.010	.009	.004	.015	.267	.246		1	.557	
-5.500	.010	.007	.006	.079	.322	.246		2	.484	
-5.000	.012	.007	.018	.307	.344	.246		3	.463	
-4.500	.049	.081	.276	.368	.361	.233		4	.491	
-4.000	.326	.329	.367	.391	.379	.218	.320	5	.554	
-3.500	.387	.387	.399	.404	.391	.241	.387	6	.664	
-3.000	.411	.407	.412	.418	.392	.282	.410	7	.442	
-2.750	.419	.418	.416	.424	.387	.304	.414	8	.355	
-2.500	.423	.420	.420	.422	.380	.326	.420	9	.355	
-2.250	.429	.424	.423	.417	.370	.345	.424	10	.357	
-2.000	.429	.425	.422	.410	.362	.367	.427	11	.353	
-1.750	.431	.425	.415	.396	.360	.399	.425	12	.594	
-1.500	.423	.416	.401	.380	.365	.425	.416	13	.502	
-1.250	.398	.399	.380	.367	.379	.458	.398	14	.480	
-1.000	.386	.379	.375	.371	.397	.500	.374	15	.523	
-8750	.378	.371	.379	.393	.435	.548	.370	16	.612	
-6.25	.387	.379	.392	.410	.462	.576	.380	17	.743	
-5.00	.401	.396	.417	.441	.498	.605	.400	18	.819	
-3.75	.434	.433	.455	.486	.542	.636	.440	19	.354	
-2.50	.491	.492	.516	.548	.605	.643	.517	20	.357	
-1.25	.598		.615		.638		.641	21	.358	
+000	.610	.607	.610	.610	.609	.606	.650	22	.357	
+250	-352	-357	-347	-347			-357			
+375	-352	-361	-350	-351	-345		-360			
+500	-355	-361	-354	-353	-348		-363			
+750	-357	-365	-354	-355	-350	-351	-362			
1.000	-352	-353	-353	-355	-351	-353	-355			
1.250	-337	-342	-341	-344	-351	-353	-336			
1.500	-310	-315	-322	-338	-353	-355	-309			
1.750	-267	-281	-295	-326	-352	-354	-280			
2.000	-246	-250	-264	-310	-348	-353	-245			
2.250	-217	-221	-246	-292	-339	-353	-217			
2.500	-188	-187	-229	-271	-328	-354	-188			
2.750	-164	-172	-202	-247	-314	-354	-165			
3.000	-146	-153	-183	-220	-300	-356	-144			
3.500	-109	-122	-141	-178	-270	-355				
4.000	-083	-102	-114	-145	-244	-350				
4.500	-071	-086	-094	-119	-213	-342				
5.000	-057	-077	-075	-097	-185	-331				
5.500	-055	-066	-061	-075	-150	-301				
6.000	-041	-056	-049	-058	-099	-247				
$\Delta = 15^\circ$										
-6.000	.010	.007	.008	.012	.021	.235		1	.477	
-5.500	.013	.005	.006	.014	.233	.267		2	.419	
-5.000	.010	.007	.009	.189	.335	.272		3	.405	
-4.500	.138	.247	.351	.362	.277			4	.422	
-4.000	.337	.340	.369	.392	.385	.205	.337	5	.462	
-3.500	.380	.387	.400	.406	.376	.217	.376	6	.533	
-3.000	.393	.396	.408	.415	.332	.262	.393	7	.283	
-2.750	.397	.409	.414	.402	.316	.287	.399	8	.351	
-2.500	.399	.407	.410	.386	.309	.307	.405	9	.353	
-2.250	.404	.407	.402	.369	.305	.335	.408	10	.353	
-2.000	.401	.400	.393	.354	.310	.360	.412	11	.345	
-1.750	.398	.378	.347	.317	.318	.388	.413	12	.543	
-1.500	.390	.386	.367	.338	.330	.410	.409	13	.479	
-1.250	.372	.374	.357	.336	.344	.435	.394	14	.463	
-1.000	.371	.361	.351	.343	.345	.464	.373	15	.494	
-750	.356	.352	.352	.357	.392	.496	.368	16	.562	
-625	.356	.354	.358	.371	.414	.510	.378	17	.656	
-500	.364	.363	.375	.393	.441	.531	.396	18	.692	
-375	.382	.386	.400	.426	.476	.549	.428	19	.342	
-250	.427	.431	.451	.476	.523	.553	.486	20	.346	
-125	.514		.529		.549		.575	21	.343	
+000	.531	.531	.535	.534	.535	.533	.579	22	.343	
+250	-351	-350	-343	-346			-344			
+375	-355	-355	-349	-350	-342		-345			
+500	-357	-358	-352	-351	-343		-347			
+750	-362	-362	-354	-353	-346	-343	-350			
1.000	-350	-348	-353	-353	-346	-343	-346			
1.250	-329	-335	-343	-342	-346	-343	-334			
1.500	-300	-312	-325	-335	-344	-343	-313			
1.750	-252	-282	-303	-323	-344	-343	-286			
2.000	-228	-252	-274	-310	-342	-341	-257			
2.250	-191	-223	-268	-293	-336	-340	-231			
2.500	-164	-183	-237	-275	-329	-338	-206			
2.750	-138	-171	-203	-257	-321	-340	-182			
3.000	-117	-147	-181	-238	-310	-343	-163			
3.500	-084	-111	-144	-200	-279	-343				
4.000	-056	-086	-115	-167	-249	-338				
4.500	-044	-064	-095	-138	-221	-332				
5.000	-032	-050	-076	-115	-198	-323				
5.500	-028	-038	-064	-097	-172	-308				
6.000	-022	-030	-054	-083	-146	-288				

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Table 17 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.56 \times 10^6$

x , in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 30^\circ$									
-6.000	.008	.005	.007	.011	.016	.014	.018	1	.573
-5.000	.008	.005	.005	.013	.018	.018	.016	2	.495
-4.500	.007	.004	.004	.010	.016	.024	.016	3	.420
-4.000	.215	.058	.040	.183	.327	.314	.301	4	.429
-3.500	.345	.318	.320	.353	.385	.301	.344	5	.506
-3.000	.374	.374	.380	.393	.406	.198	.345	6	.648
-2.500	.376	.385	.393	.407	.322	.230	.344	7	.375
-2.000	.382	.392	.397	.384	.270	.240	.344	8	-.384
-1.500	.381	.387	.385	.345	.241	.253	.343	9	-.400
-1.250	.369	.370	.351	.293	.228	.302	.336	10	-.409
-1.000	.337	.332	.305	.248	.223	.370	.328	11	-.394
-1.750	.295	.287	.258	.230	.230	.460	.313	12	.373
-1.500	.250	.241	.226	.215	.239	.536	.293	13	.314
-1.250	.210	.215	.212	.215	.274	.613	.272	14	.299
-1.000	.203	.204	.219	.233	.339	.679	.251	15	.317
-1.750	.214	.217	.246	.297	.460	.723	.236	16	.357
-1.500	.240	.250	.284	.361	.528	.723	.239	17	.405
-1.250	.293	.312	.356	.443	.593	.723	.246	18	.392
-1.000	.383	.400	.456	.540	.651	.696	.271	19	-.308
-1.250	.508	.523	.570	.615	.678	.654	.324	20	-.306
-1.000	.631		.651		.634		.415	21	-.302
-1.250	.809	.606	.611	.610	.613	.611	.408	22	-.304
$\Delta = 45^\circ$									
-6.000	.011	.006	.003	.012	.017	.014	.016	1	.629
-5.000	.010	.004	.005	.008	.016	.016	.016	2	.619
-4.500	.009	.004	.002	.006	.016	.010	.016	3	.613
-4.000	.019	.005	.003	.012	.017	.244	.313	4	.636
-3.500	.258	.103	.035	.125	.302	.363	.313	5	.684
-3.000	.325	.307	.302	.336	.380	.279	.316	6	.729
-2.500	.343	.344	.353	.372	.378	.211	.312	7	-.064
-2.000	.347	.349	.358	.380	.317	.228	.314	8	-.435
-1.500	.353	.355	.365	.360	.242	.261	.313	9	-.438
-1.250	.350	.354	.350	.311	.210	.350	.299	10	-.436
-1.000	.196	.197	.220	.279	.321	.304	.226	11	-.429
-1.750	.171	.169	.192	.252	.310	.303	.199	12	-.353
-1.500	.149	.143	.165	.232	.300	.304	.174	13	-.318
-1.250	.128	.128	.146	.213	.286	.306	.151	14	-.280
-1.000	.099	.112	.128	.190	.274	.309	.129	15	-.281
-1.250	.040	.092	.097	.155	.246	.303	16	-.324	
-1.000	.032	.062	.077	.126	.220	.300	17	-.393	
-1.250	.076	.039	.065	.104	.195	.298	18	-.404	
-1.000	.060	.012	.049	.084	.173	.284	19	-.238	
-1.250	.043	.021	.042	.071	.159	.276	20	-.311	
-1.000	.037	.053	.034	.058	.147	.261	21	-.275	
$\Delta = 45^\circ$									
-6.000	.011	.006	.003	.012	.017	.014	.016	1	.629
-5.000	.010	.004	.005	.008	.016	.016	.016	2	.619
-4.500	.009	.004	.002	.006	.016	.010	.016	3	.613
-4.000	.019	.005	.003	.012	.017	.244	.313	4	.636
-3.500	.258	.103	.035	.125	.302	.363	.313	5	.684
-3.000	.325	.307	.302	.336	.380	.279	.316	6	.729
-2.500	.343	.344	.353	.372	.378	.211	.312	7	-.064
-2.000	.347	.349	.358	.380	.317	.228	.314	8	-.435
-1.500	.353	.355	.365	.360	.242	.261	.313	9	-.438
-1.250	.350	.354	.350	.311	.210	.350	.299	10	-.436
-1.000	.235	.327	.327	.310	.208	.279	.279	11	-.429
-1.750	.285	.282	.249	.211	.223	.589	.248	12	-.353
-1.500	.231	.222	.205	.200	.266	.662	.213	13	-.318
-1.250	.182	.192	.194	.217	.359	.706	.178	14	-.280
-1.000	.191	.202	.229	.287	.484	.726	.157	15	-.281
-1.250	.251	.266	.325	.423	.606	.723	.160	16	-.324
-1.000	.324	.349	.406	.505	.636	.710	.175	17	-.393
-1.250	.423	.423	.501	.583	.659	.703	.208	18	-.404
-1.000	.533	.544	.588	.634	.674	.685	.242	19	-.238
-1.250	.612	.611	.633	.652	.676	.668	.336	20	-.311
-1.000	.650		.658		.657		.393	21	-.275
-1.250	.635	.630	.632	.632	.636	.633	.368	22	-.265
$\Delta = 45^\circ$									
-6.000	.432	.434	.419	.420			.429		
-5.000	.438	.439	.422	.413	.400		.338		
-4.500	.462	.463	.440	.419	.394		.333		
-4.000	.466	.487	.474	.445	.381	.349	.311		
-3.500	.498	.439	.469	.434	.380	.335	.301		
-3.000	.436	.400	.447	.405	.376	.303	.306		
-2.500	.355	.362	.422	.404	.361	.290	.344		
-2.000	.327	.327	.399	.402	.336	.281	.332		
-1.500	.291	.292	.365	.395	.314	.272	.308		
-1.250	.137	.278	.340	.368	.295	.278	.286		
-1.000	.028	.222	.306	.349	.278	.288	.263		
-1.250	.069	.050	.284	.323	.271	.304	.238		
-1.000	.061	.066	.260	.295	.277	.327	.209		
-1.250	.041	.070	.107	.235	.300	.280			
-1.000	.023	.056	.081	.195	.405	.291			
-1.250	.017	.040	.090	.167	.274	.311			
-1.000	.012	.029	.084	.139	.247	.277			
-1.250	.006	.024	.078	.096	.230	.291			
-1.000	.007	.018	.071	.021	.206	.260			

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Table 17 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.56 \times 10^6$

x , in.	Plate								Spoiler Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	.014	.008	.003	.008	.019	.016			1 .426
-5.500	.013	.009	.001	.008	.019	.016			2 .428
-5.000	.010	.007	.003	.008	.018	.012			3 .429
-4.500	.011	.006	.000	.010	.016	.012			4 .425
-4.000	.016	.007	.001	.009	.017	.171			5 .415
-3.500	.133	.031	.008	.027	.213	.341	.234		6 .389
-3.000	.231	.208	.205	.252	.312	.232	.243		7 .202
-2.750	.249	.247	.250	.279	.322	.214	.244		8 .337
-2.500	.261	.261	.268	.284	.305	.261	.244		9 .392
-2.250	.262	.264	.271	.291	.230	.342	.241		10 .400
-2.000	.263	.267	.275	.269	.180	.427	.238		11 .444
-1.750	.257	.261	.253	.205	.200	.509	.221		12 .331
-1.500	.221	.218	.190	.168	.264	.534	.190		13 .330
-1.250	.143	.163	.168	.207	.367	.534	.158		14 .339
-1.000	.171	.184	.219	.301	.464	.517	.168		15 .347
-0.750	.269	.293	.345	.426	.493	.498	.221		16 .352
-0.625	.361	.371	.407	.457	.480	.483	.259		17 .336
-0.500	.421	.410	.443	.466	.473	.473	.294		18 .194
-0.375	.433	.448	.452	.459	.467	.466	.319		19 .361
-0.250	.443	.432	.441	.445	.461	.457	.333		20 .359
-0.125	.443		.444		.449		.339		21 .251
0.000	.429	.426	.428	.425	.432	.429	.336		22 .243
$\Delta = 75^\circ$									
-6.000	.017	.007	.005	.015	.015	.012			1 .132
-5.500	.014	.007	.005	.010	.017	.012			2 .139
-5.000	.013	.005	.003	.011	.015	.008			3 .137
-4.500	.012	.004	.001	.013	.014	.009			4 .127
-4.000	.017	.007	.003	.011	.014	.013	.095		5 .114
-3.500	.048	.011	.007	.012	.020	.187	.093		6 .096
-3.000	.105	.069	.048	.078	.161	.239	.089		7 .276
-2.750	.121	.111	.102	.135	.192	.227	.088		8 .121
-2.500	.127	.129	.138	.163	.195	.208	.089		9 .215
-2.250	.132	.135	.147	.170	.186	.200	.089		10 .299
-2.000	.127	.138	.149	.165	.172	.194	.090		11 .326
-1.750	.129	.136	.144	.161	.159	.191	.091		12 .110
-1.500	.127	.131	.137	.152	.158	.184	.090		13 .112
-1.250	.108	.126	.128	.139	.159	.183	.091		14 .114
-1.000	.112	.115	.131	.143	.159	.174	.087		15 .117
-0.750	.111	.119	.140	.146	.162	.172	.082		16 .114
-0.625	.115	.129	.145	.152	.161	.165	.088		17 .103
-0.500	.126	.136	.148	.155	.160	.166	.096		18 .036
-0.375	.130	.143	.151	.159	.165	.164	.104		19 .227
-0.250	.144	.135	.148	.154	.162	.159	.113		20 .203
-0.125	.147		.156		.155		.117		21 .167
0.000	.141	.132	.148	.143	.145	.142	.114		22 .071
$\Delta = 75^\circ$									
-6.000	.017	.007	.005	.015	.015	.012			1 .132
-5.500	.014	.007	.005	.010	.017	.012			2 .139
-5.000	.013	.005	.003	.011	.015	.008			3 .137
-4.500	.012	.004	.001	.013	.014	.009			4 .127
-4.000	.017	.007	.003	.011	.014	.013	.095		5 .114
-3.500	.048	.011	.007	.012	.020	.187	.093		6 .096
-3.000	.105	.069	.048	.078	.161	.239	.089		7 .276
-2.750	.121	.111	.102	.135	.192	.227	.088		8 .121
-2.500	.127	.129	.138	.163	.195	.208	.089		9 .215
-2.250	.132	.135	.147	.170	.186	.200	.089		10 .299
-2.000	.127	.138	.149	.165	.172	.194	.090		11 .326
-1.750	.129	.136	.144	.161	.159	.191	.091		12 .110
-1.500	.127	.131	.137	.152	.158	.184	.090		13 .112
-1.250	.108	.126	.128	.139	.159	.183	.091		14 .114
-1.000	.112	.115	.131	.143	.159	.174	.087		15 .117
-0.750	.111	.119	.140	.146	.162	.172	.082		16 .114
-0.625	.115	.129	.145	.152	.161	.165	.088		17 .103
-0.500	.126	.136	.148	.155	.160	.166	.096		18 .036
-0.375	.130	.143	.151	.159	.165	.164	.104		19 .227
-0.250	.144	.135	.148	.154	.162	.159	.113		20 .203
-0.125	.147		.156		.155		.117		21 .167
0.000	.141	.132	.148	.143	.145	.142	.114		22 .071
$\Delta = 75^\circ$									
-6.000	.017	.007	.005	.015	.015	.012			1 .132
-5.500	.014	.007	.005	.010	.017	.012			2 .139
-5.000	.013	.005	.003	.011	.015	.008			3 .137
-4.500	.012	.004	.001	.013	.014	.009			4 .127
-4.000	.017	.007	.003	.011	.014	.013	.095		5 .114
-3.500	.048	.011	.007	.012	.020	.187	.093		6 .096
-3.000	.105	.069	.048	.078	.161	.239	.089		7 .276
-2.750	.121	.111	.102	.135	.192	.227	.088		8 .121
-2.500	.127	.129	.138	.163	.195	.208	.089		9 .215
-2.250	.132	.135	.147	.170	.186	.200	.089		10 .299
-2.000	.127	.138	.149	.165	.172	.194	.090		11 .326
-1.750	.129	.136	.144	.161	.159	.191	.091		12 .110
-1.500	.127	.131	.137	.152	.158	.184	.090		13 .112
-1.250	.108	.126	.128	.139	.159	.183	.091		14 .114
-1.000	.112	.115	.131	.143	.159	.174	.087		15 .117
-0.750	.111	.119	.140	.146	.162	.172	.082		16 .114
-0.625	.115	.129	.145	.152	.161	.165	.088		17 .103
-0.500	.126	.136	.148	.155	.160	.166	.096		18 .036
-0.375	.130	.143	.151	.159	.165	.164	.104		19 .227
-0.250	.144	.135	.148	.154	.162	.159	.113		20 .203
-0.125	.147		.156		.155		.117		21 .167
0.000	.141	.132	.148	.143	.145	.142	.114		22 .071

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Table 17 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.56 \times 10^6$

x , in.	Plate								Spoiler Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = -15^\circ$									
-6.000	.010	.004	.004	.137	.296	.212			1 .345
-5.500	.012	.007	.007	.290	.313	.210			2 .381
-5.000	.017	.014	.223	.329	.323	.201			3 .466
-4.500	.227	.257	.327	.358	.338	.194			4 .494
-4.000	.337	.343	.359	.368	.355	.209	.354		5 .551
-3.500	.366	.370	.375	.379	.368	.248	.380		6 .639
-3.000	.380	.385	.386	.393	.374	.292	.384		7 .551
-2.750	.387	.389	.393	.399	.372	.310	.385		8 .343
-2.500	.392	.391	.397	.402	.366	.329	.386		9 .343
-2.250	.396	.397	.399	.398	.355	.343	.384		10 .342
-2.000	.397	.400	.399	.391	.347	.361	.377		11 .340
-1.750	.400	.402	.394	.380	.349	.384	.367		12 .467
-1.500	.400	.395	.384	.365	.355	.409	.354		13 .408
-1.250	.377	.382	.365	.356	.369	.441	.343		14 .395
-1.000	.369	.362	.359	.362	.394	.482	.331		15 .416
-.750	.359	.357	.371	.386	.431	.524	.328		16 .453
-.625	.370	.369	.383	.408	.456	.547	.332		17 .506
-.500	.388	.393	.408	.436	.488	.572	.344		18 .491
-.375	.423	.427	.446	.478	.528	.596	.271		19 .355
-.250	.481	.483	.502	.533	.580	.607	.422		20 .361
-.125	.582		.590		.612		.503		21 .363
+.000	.594	.590	.593	.592	.594	.592	.509		22 .357
$\Delta = -30^\circ$									
-6.000	.009	.007	.199	.277	.255	.147			1 .371
-5.500	.026	.156	.279	.288	.254	.146			2 .307
-5.000	.249	.289	.301	.293	.257	.145			3 .282
-4.500	.325	.320	.316	.297	.260	.158			4 .297
-4.000	.346	.332	.313	.290	.268	.191	.341		5 .335
-3.500	.348	.332	.315	.296	.277	.220	.371		6 .395
-3.000	.342	.327	.311	.297	.282	.240	.386		7 .123
-2.750	.343	.329	.314	.297	.282	.246	.384		8 .293
-2.500	.339	.325	.310	.295	.279	.249	.376		9 .291
-2.250	.332	.319	.305	.288	.272	.252	.352		10 .287
-2.000	.317	.310	.297	.281	.265	.256	.318		11 .272
-1.750	.301	.297	.284	.273	.258	.262	.274		12 .635
-1.500	.277	.275	.268	.258	.250	.270	.243		13 .547
-1.250	.244	.255	.248	.243	.247	.287	.222		14 .460
-1.000	.231	.235	.235	.233	.248	.313	.213		15 .492
-.750	.223	.223	.226	.236	.270	.349	.223		16 .617
-.625	.225	.225	.231	.243	.287	.374	.249		17 .788
-.500	.237	.243	.246	.264	.316	.395	.304		18 .844
-.375	.263	.264	.277	.301	.362	.420	.406		19 .431
-.250	.316	.313	.327	.360	.409	.430	.568		20 .427
-.125	.411		.416		.436		.699		21 .429
+.000	.416	.412	.415	.412	.422	.419	.660		22 .415
$\Delta = -30^\circ$									
-6.000	.009	.007	.199	.277	.255	.147			1 .371
-5.500	.026	.156	.279	.288	.254	.146			2 .307
-5.000	.249	.289	.301	.293	.257	.145			3 .282
-4.500	.325	.320	.316	.297	.260	.158			4 .297
-4.000	.346	.332	.313	.290	.268	.191	.341		5 .335
-3.500	.348	.332	.315	.296	.277	.220	.371		6 .395
-3.000	.342	.327	.311	.297	.282	.240	.386		7 .123
-2.750	.343	.329	.314	.297	.282	.246	.384		8 .293
-2.500	.339	.325	.310	.295	.279	.249	.376		9 .291
-2.250	.332	.319	.305	.288	.272	.252	.352		10 .287
-2.000	.317	.310	.297	.281	.265	.256	.318		11 .272
-1.750	.301	.297	.284	.273	.258	.262	.274		12 .635
-1.500	.277	.275	.268	.258	.250	.270	.243		13 .547
-1.250	.244	.255	.248	.243	.247	.287	.222		14 .460
-1.000	.231	.235	.235	.233	.248	.313	.213		15 .492
-.750	.223	.223	.226	.236	.270	.349	.223		16 .617
-.625	.225	.225	.231	.243	.287	.374	.249		17 .788
-.500	.237	.243	.246	.264	.316	.395	.304		18 .844
-.375	.263	.264	.277	.301	.362	.420	.406		19 .431
-.250	.316	.313	.327	.360	.409	.430	.568		20 .427
-.125	.411		.416		.436		.699		21 .429
+.000	.416	.412	.415	.412	.422	.419	.660		22 .415

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Table 17 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.56 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = -45^\circ$										
-6.000	.010	.020	.250	.283	.243	.084		1	.375	
-5.500	.014	.194	.276	.288	.250	.064		2	.357	
-5.000	.208	.268	.289	.289	.258	.048		3	.322	
-4.500	.286	.293	.296	.291	.264	.058		4	.313	
-4.000	.307	.301	.291	.290	.259	.102		5	.344	
-3.500	.314	.300	.292	.286	.241	.130		6	.412	
-3.000	.310	.298	.288	.266	.209	.132		7	.072	
-2.750	.310	.302	.281	.250	.191	.139		8	.241	
-2.500	.302	.288	.265	.231	.178	.143		9	.244	
-2.250	.284	.267	.241	.205	.156	.149		10	.237	
-2.000	.255	.241	.217	.181	.143	.162		11	.226	
-1.750	.223	.211	.187	.168	.145	.185		12	.672	
-1.500	.187	.175	.158	.157	.157	.214		13	.666	
-1.250	.149	.157	.142	.150	.179	.261		14	.671	
-1.000	.147	.148	.151	.158	.188	.307		15	.701	
-0.750	.170	.168	.179	.198	.257	.339		16	.731	
-0.625	.196	.193	.208	.235	.292	.380		17	.399	
-0.500	.235	.241	.248	.281	.334	.371		18	.560	
-0.375	.291	.288	.308	.332	.368	.379		19	.482	
-0.250	.353	.348	.351	.374	.393	.386		20	.430	
-0.125	.401		.398		.397			21	.450	
0.000	.393	.392	.399	.397	.403	.400		22	.410	
$\Delta = -60^\circ$										
-6.000	.016	.020	.149	.215	.222	.044		1	.346	
-5.500	.018	.051	.184	.225	.227	.059		2	.340	
-5.000	.029	.137	.209	.229	.232	.075		3	.350	
-4.500	.128	.190	.222	.237	.238	.123		4	.348	
-4.000	.200	.217	.231	.236	.232	.144		5	.340	
-3.500	.226	.229	.236	.235	.221	.158		6	.308	
-3.000	.236	.236	.236	.235	.182	.187		7	.204	
-2.750	.236	.238	.239	.224	.160	.208		8	.121	
-2.500	.237	.235	.234	.209	.154	.230		9	.160	
-2.250	.240	.231	.218	.181	.146	.251		10	.299	
-2.000	.225	.217	.197	.154	.149	.275		11	.244	
-1.750	.200	.189	.157	.147	.201	.293		12	.444	
-1.500	.152	.141	.137	.142	.242	.311		13	.440	
-1.250	.128	.144	.159	.203	.282	.322		14	.439	
-1.000	.182	.187	.218	.265	.265	.329		15	.435	
-0.750	.272	.277	.293	.310	.330	.331		16	.422	
-0.625	.311	.319	.317	.327	.325	.334		17	.384	
-0.500	.323	.328	.320	.330	.340	.336		18	.205	
-0.375	.343	.342	.345	.341	.346	.339		19	.384	
-0.250	.349	.343	.328	.347	.351	.346		20	.427	
-0.125	.350		.347		.352			21	.315	
0.000	.359	.356	.361	.360	.365	.362		22	.294	
$\Delta = -120^\circ$										
-6.000	.117	.122	.127	.135					.395	
-5.500	.117	.132	.145	.169	.169				.403	
-5.000	.136	.153	.179	.203	.212				.395	
-4.500	.292	.313	.304	.274	.241				.370	
-4.000	.321	.344	.357	.360	.302				.278	
-3.500	.414	.428	.419	.424	.398				.201	
-3.000	.386	.384	.396	.397	.429				.129	
-2.750	.283	.291	.329	.377	.418				.078	
-2.500	.179	.149	.219	.315	.377				.037	
-2.000	.112	.040	.110	.230	.368				.028	
-2.250	.064	.015	.040	.147	.297				.015	
-2.500	.034	.034	.010	.065	.192				.004	
-3.000	.016	.009	.010	.004	.071				.005	
-3.500	.013	.006	.008	.069	.082				.274	
-4.000	.022	.004	.038	.008	.009				.081	
-4.500	.022	.005	.011	.018	.006				.034	
-5.000	.013	.019	.008	.003	.069				.147	
-6.000	.000	.031	.016	.079	.157				.362	
	.009	.012	.023	.070	.087				.181	

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Table 17 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 8 $M = 1.61$ $R = 0.56 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = -75^\circ$										
-6.000	.026	.063	.072	.071	.077	.012		1	.089	
-5.500	.034	.082	.073	.071	.077	.021		2	.092	
-5.000	.066	.086	.070	.070	.080	.046		3	.095	
-4.500	.089	.082	.071	.074	.084	.077		4	.088	
-4.000	.091	.079	.070	.069	.086	.086		5	.079	
-3.500	.085	.073	.071	.073	.088	.091		6	.054	
-3.000	.079	.073	.069	.075	.087	.088		7	-.171	
-2.750	.076	.078	.073	.075	.086	.090		8	.057	
-2.500	.079	.074	.072	.076	.085	.093		9	-.111	
-2.250	.080	.073	.070	.075	.080	.091		10	-.171	
-2.000	.077	.075	.073	.076	.075	.088		11	-.172	
-1.750	.081	.077	.073	.078	.071	.090		12	.120	
-1.500	.080	.074	.070	.077	.075	.085		13	.119	
-1.250	.063	.074	.069	.071	.082	.091		14	.119	
-1.000	.066	.070	.075	.079	.052	.091		15	.114	
-0.750	.075	.078	.079	.083	.091	.093		16	.103	
-0.625	.080	.085	.082	.087	.095	.094		17	.083	
-0.500	.083	.084	.081	.086	.095	.094		18	-.028	
-0.375	.088	.089	.100	.098	.104	.096		19	-.104	
-0.250	.092	.091	.091	.099	.103	.099		20	-.420	
-0.125	.096		.099		.102			21	-.118	
.000	.106		.110		.111			22	-.305	
+2.50	.075	.028	.002	.004					.099	
+3.75	.051	-.012	-.013	-.010	-.001				.094	
+5.00	.042	-.034	-.035	-.011	-.003				.098	
+7.50	.056	-.049	-.041	-.034	-.003	.012			.096	
+1.000	.028	-.002	-.023	-.091	-.101	-.065			-.025	
+1.250	.021	-.059	-.156	-.182	-.220	-.175			-.057	
+1.500	.004	-.090	-.115	-.114	-.190	-.230			-.043	
+1.750	.014	-.089	-.063	-.086	-.137	-.233			-.011	
+2.000	.028	-.059	-.056	-.065	-.121	-.204			-.003	
+2.250	.058	-.037	-.037	-.029	-.105	-.161			-.022	
+2.500	.045	-.033	-.006	-.018	-.010	-.319			-.010	
+2.750	.027	-.012	-.023	-.048	-.063	-.010			-.015	
+3.000	.017	-.001	-.030	-.044	-.006	-.026			-.033	
+3.500	.007	.012	-.010	-.021	-.031	-.017				
+4.000	.007	.011	-.000	-.001	-.009	-.012				
+4.500	.021	.004	-.002	-.029	-.032	-.081				
+5.000	.025	.005	-.066	-.088	-.143	-.295				
+5.500	.011	-.020	-.048	-.024	-.048	-.209				
+6.000	.011	-.053	-.003	-.037	-.043	-.052				

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Table 18
Plate and Spoiler Pressure Coefficients
Configuration 9 $M = 1.61$ $R = 0.30 \times 10^6$

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6.000	.002	-.004	-.004	-.002	.217	.361		1	+.497
-5.500	.003	-.003	-.003	-.002	.323	.355		2	+.496
-5.000	.004	-.003	-.003	-.002	.361	.401		3	+.491
-4.500	.001	-.007	-.002	.182	.383	.405		4	+.469
-4.000	-.001	-.005	-.006	.220	.393	.402	-.002	5	+.512
-3.500	.006	-.057	.272	.358	.400	.354	.004	6	+.565
-3.000	.289	.307	.250	.369	.403	.359	.267	7	+.631
-2.750	.337	.354	.348	.388	.405	.387	.328	8	-.247
-2.500	.361	.368	.382	.393	.408	.399	.356	9	-.336
-2.250	.384	.383	.387	.396	.410	.386	.368	10	-.337
-2.000	.388	.390	.394	.401	.407	.388	.341	11	-.337
-1.750	.398	.398	.402	.402	.406	.393	.389	12	+.471
-1.500	.402	.401	.401	.403	.402	.396	.393	13	+.494
-1.250	.381	.404	.404	.398	.396	.402	.398	14	+.424
-1.000	.402	.399	.398	.390	.394	.411	.400	15	+.441
-.750	.390	.385	.386	.378	.398	.432	.390	16	+.468
-.625	.386	.381	.381	.386	.408	.449	.384	17	+.518
-.500	.387	.375	.391	.396	.424	.477	.383	18	+.567
-.375	.398	.399	.406	.416	.448	.506	.386	19	-.336
-.250	.422	.422	.428	.451	.489	.536	.403	20	-.344
-.125	.484	.497	.502	.537	.557	.590	.450	21	-.344
.000	.534	.529	.533	.530	.534	.531	.499	22	-.337
$\Delta = 15^\circ$									
-6.000	-.001	-.004	-.005	-.006	.033	.365		1	+.454
-5.500	-.002	-.004	-.005	-.006	.264	.370		2	+.424
-5.000	-.001	-.005	-.006	-.007	.347	.393		3	+.417
-4.500	.000	-.007	-.004	.192	.376	.390		4	+.422
-4.000	-.002	-.005	.056	.320	.382	.386	.004	5	+.451
-3.500	.062	.131	.285	.346	.376	.378	.095	6	+.487
-3.000	.297	.309	.335	.355	.369	.349	.305	7	+.527
-2.750	.331	.341	.348	.350	.364	.365	.333	8	-.346
-2.500	.351	.351	.356	.355	.359	.359	.347	9	-.337
-2.250	.369	.360	.360	.355	.360	.347	.357	10	-.340
-2.000	.371	.368	.368	.363	.365	.365	.367	11	-.340
-1.750	.379	.377	.374	.372	.370	.350	.371	12	+.461
-1.500	.383	.381	.381	.376	.366	.354	.377	13	+.430
-1.250	.384	.384	.382	.377	.359	.378	.383	14	+.419
-1.000	.391	.385	.380	.350	.368	.398	.376	15	+.435
-.750	.381	.373	.361	.353	.373	.419	.362	16	+.462
-.625	.375	.363	.358	.363	.386	.432	.357	17	.508
-.500	.371	.362	.363	.371	.397	.448	.360	18	.547
-.375	.376	.374	.382	.397	.420	.469	.372	19	-.329
-.250	.396	.400	.400	.416	.447	.486	.395	20	-.339
-.125	.447	.451	.451	.473	.485	.485	.443	21	-.339
.000	.479	.477	.477	.473	.482	.482	.479	22	-.333
$\Delta = 00^\circ$									
*250	*.340	*.346	*.341	*.341	*.341	*.341	*.332		*.332
*375	*.340	*.345	*.348	*.345	*.345	*.345			*.334
*500	*.348	*.340	*.347	*.344	*.332				*.336
*750	*.342	*.348	*.344	*.344	*.332	*.327			*.332
1.000	*.313	*.304	*.334	*.344	*.328	*.326			*.304
1.250	*.261	*.284	*.307	*.320	*.328	*.325			*.256
1.500	*.211	*.237	*.270	*.295	*.327	*.326			*.209
1.750	*.177	*.191	*.230	*.265	*.321	*.321			*.168
2.000	*.125	*.157	*.180	*.227	*.310	*.320			*.134
2.250	*.100	*.131	*.164	*.178	*.296	*.318			*.109
2.500	*.085	*.107	*.140	*.152	*.271	*.317			*.093
2.750	*.075	*.091	*.116	*.100	*.252	*.319			*.081
3.000	*.075	*.081	*.101	*.082	*.226	*.327			*.074
3.500	*.066	*.066	*.076	*.074	*.166	*.313			
4.000	*.056	*.054	*.062	*.069	*.130	*.301			
4.500	*.047	*.048	*.049	*.062	*.114	*.277			
5.000	*.038	*.047	*.044	*.053	*.100	*.252			
5.500	*.035	*.043	*.050	*.044	*.085	*.207			
6.000	*.022	*.040	*.045	*.040	*.072	*.182			

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Table 18 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 9 M = 1.61 R = 0.30 × 10⁶

x, in.	Plate							Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 30^\circ$									
-6.000	.000	-.002	-.005	.000	.187	.211		1	.465
-5.500	.002	-.002	-.003	.000	.244	.289		2	.434
-5.000	.000	-.002	-.005	-.005	.280			3	.419
-4.500	.002	-.004	-.004	.154	.318	.328		4	.426
-4.000	.002	-.002	.058	.277	.341	.348	.036	5	.451
-3.500	.154	.165	.255	.309	.352	.353	.243	6	.484
-3.000	.285	.283	.300	.321	.352	.337	.299	7	.517
-2.750	.305	.312	.312	.316	.337	.321	.309	8	-.329
-2.500	.320	.316	.317	.307	.315	.287	.318	9	-.322
-2.250	.335	.325	.322	.312	.301	.245	.323	10	-.328
-2.000	.338	.332	.326	.312	.307	.265	.329	11	-.309
-1.750	.348	.341	.333	.325	.320	.282	.331	12	.441
-1.500	.353	.342	.339	.332	.328	.292	.337	13	.409
-1.250	.336	.352	.342	.335	.322	.329	.337	14	.399
-1.000	.363	.355	.348	.329	.328	.370	.340	15	.412
-0.750	.349	.338	.325	.316	.347	.411	.330	16	.428
-0.625	.345	.328	.330	.332	.366	.435	.323	17	.470
-0.500	.344	.336	.340	.350	.392	.454	.325	18	.484
-0.375	.359	.357	.358	.378	.418	.483	.337	19	-.317
-0.250	.394	.390	.402	.423	.460	.504	.366	20	-.330
-0.125	.460		.470		.498		.424	21	-.330
0.000	.487	.483	.488	.486	.489	.489	.460	22	-.315
$\Delta = 45^\circ$									
-6.000	-.003	-.006	-.005	.001	.224	.092		1	.348
-5.500	-.004	-.005	-.006	.039	.197	.106		2	.323
-5.000	-.003	-.005	-.005	.124	.182	.166		3	.315
-4.500	.004	.003	.062	.200	.214	.220		4	.314
-4.000	.091	.099	.169	.230	.243	.252	.142	5	.330
-3.500	.175	.184	.218	.252	.269	.271	.206	6	.341
-3.000	.213	.213	.224	.250	.272	.280	.244	7	.336
-2.750	.225	.231	.227	.237	.250	.230	.252	8	-.271
-2.500	.234	.228	.224	.224	.205	.099	.263	9	-.268
-2.250	.250	.234	.223	.205	.147	.009	.272	10	-.313
-2.000	.246	.237	.225	.190	.133	.028	.281	11	-.292
-1.750	.262	.244	.220	.192	.145	.088	.290	12	.404
-1.500	.263	.246	.224	.197	.172	.124	.301	13	.379
-1.250	.240	.246	.223	.197	.190	.157	.308	14	.375
-1.000	.264	.244	.240	.212	.195	.214	.312	15	.393
-0.750	.260	.243	.235	.205	.206	.292	.316	16	.408
-0.625	.252	.232	.229	.209	.234	.310	.316	17	.436
-0.500	.243	.230	.231	.225	.264	.339	.306	18	.422
-0.375	.245	.241	.250	.255	.305	.364	.299	19	-.256
-0.250	.279	.272	.289	.304	.347	.380	.320	20	-.266
-0.125	.341		.357		.379		.383	21	-.268
0.000	.389	.387	.400	.392	.405	.402	.425	22	-.261

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Table 18 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 9 M = 1.61 R = 0.30 x 10⁶

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
	$\Delta = 60^\circ$									
-6.000	.001	-001	-002	.006	.173	-005		1	.295	
-5.500	.004	-001	.000	.059	.149	-051		2	.274	
-5.000	.032	.015	.032	.104	.119	.011		3	.263	
-4.500	.097	.081	.099	.150	.148	.115		4	.261	
-4.000	.135	.141	.162	.196	.212	.195	.146	5	.273	
-3.500	.149	.170	.195	.220	.253	.266	.151	6	.272	
-3.000	.144	.163	.184	.212	.263	.331	.143	7	.260	
-2.750	.141	.162	.170	.200	.209	.269	.134	8	.242	
-2.500	.140	.134	.145	.155	.128	-026	.122	9	.233	
-2.250	.150	.115	.105	.091	.086	-195	.114	10	.268	
-2.000	.143	.087	.051	.015	.017	-233	.107	11	.255	
-1.750	.153	.078	.003	-044	-069	-166	.110	12	.202	
-1.500	.158	.089	.010	-061	-078	-064	.121	13	.185	
-1.250	.143	.111	.062	.032	.040	.024	.129	14	.184	
-1.000	.166	.133	.112	.096	.105	.081	.129	15	.197	
-0.750	.178	.154	.142	.125	.124	.162	.121	16	.203	
-0.625	.184	.160	.155	.130	.138	.206	.122	17	.218	
-0.500	.187	.160	.161	.146	.167	.241	.124	18	.196	
-0.375	.194	.177	.172	.180	.221	.271	.128	19	.125	
-0.250	.225	.214	.227	.234	.264	.295	.139	20	.183	
-0.125	.293			.295		.304	.184	21	.183	
0.000	.314	.311	.321	.315	.320	.319	.219	22	.175	
-2.500	-186	-179	-160	-159			-134			
-3.75	-182	-185	-169	-161	-128		-117			
-5.000	-165	-163	-171	-169	-130		-119			
-7.500	-123	-119	-139	-176	-131	-092	-103			
1.000	-173	-110	-120	-144	-140	-062	-110			
1.250	-254	-114	-127	-123	-153	-075	-148			
1.500	-223	-119	-160	-121	-178	-110	-207			
1.750	-193	-090	-179	-123	-206	-144	-195			
2.000	-144	-066	-154	-127	-236	-168	-155			
2.250	-054	-004	-164	-135	-252	-174	-126			
2.500	-020	.078	-129	-143	-256	-156	-107			
2.750	.018	.115	-081	-151	-247	-139	-086			
3.000	.028	.116	-025	.153	-230	-142	-059			
3.500	.032	.094	.047	-032	-186	-089				
4.000	.038	.068	.057	-089	-147	-145				
4.500	.036	.049	.040	-029	-117	-117				
5.000	.034	.038	.040	.025	-101	-120				
5.500	.027	.030	.029	.061	-082	-150				
6.000	.014	.024	.022	.071	-080	-142				
$\Delta = 75^\circ$										
-6.000	.048	.018	.012	.037	.131	-001		1	.308	
-5.500	.051	.045	.046	.077	.100	.060		2	.299	
-5.000	.049	.050	.059	.067	.046	.053		3	.281	
-4.500	.051	.042	.046	.041	.005	.060		4	.249	
-4.000	.072	.056	.049	.039	.013	.015	.059	5	.236	
-3.500	.063	.079	.091	.104	.128	.257	.052	6	.210	
-3.000	.040	.069	.091	.126	.142	.337	.038	7	.169	
-2.750	.029	.067	.082	.109	.100	.252	.024	8	.089	
-2.500	.013	.034	.057	.067	.053	.148	.012	9	.092	
-2.250	.006	.014	.022	.007	.008	-090	.004	10	.107	
-2.000	.029	-020	-022	-042	-042	-189	-015	11	.184	
-1.750	.036	-059	-072	-070	-094	-216	-021	12	.150	
-1.500	.027	-094	-101	-099	-132	-157	-015	13	.141	
-1.250	.013	-091	-105	-112	-098	-070	-006	14	.134	
-1.000	.101	-020	-040	-041	.017	.013	.014	15	.130	
-0.750	.170	.080	.054	.047	.070	.089	.051	16	.125	
-0.625	.208	.132	.107	.097	.118	.127	.071	17	.118	
-0.500	.237	.174	.159	.152	.163	.167	.094	18	.100	
-0.375	.267	.237	.220	.206	.215	.207	.120	19	.107	
-0.250	.292	.268	.264	.247	.246	.243	.138	20	.118	
-0.125	.301	.290	.290	.279	.279	.279	.144	21	.118	
0.000	.317	.314	.321	.317	.321	.319	.155	22	.110	
-2.500	.082	.074	.052	.065			.105			
-3.75	.076	.072	.059	.061	-041		.103			
-5.000	.081	.070	.059	.049	.032		.100			
-7.500	.117	.056	.037	.030	.015	-010	.071			
1.000	.193	.060	.002	.011	.000	.024	.090			
1.250	.146	.120	.070	.016	.005	.062	.062			
1.500	.090	.115	.114	.036	.029	.063	.014			
1.750	.045	.094	.130	.050	.051	.054	.002			
2.000	.013	.078	.131	.059	.063	.036	.005			
2.250	.004	.062	.107	.053	.057	.026	.007			
2.500	.008	.046	.071	.053	.049	.023	.000			
2.750	.027	.035	.079	.046	.036	.007	.000			
3.000	.036	.024	.070	.041	.024	.086	.002			
3.500	.023	.012	.059	.031	.003	.006				
4.000	.008	.012	.050	.021	.017	.013				
4.500	.014	.015	.029	.016	.007	.074				
5.000	.027	.015	.025	.014	.005	.019				
5.500	.027	.010	.017	.010	.024	.073				
6.000	.017	.005	.012	.010	.035	.097				

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Table 19
Plate and Spoiler Pressure Coefficients

x, in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	Spoiler
$\Delta = 00^\circ$									
-6.000	-005	-005	-017	-006	-353	-357		1	*444
-5.500	-007	-002	-017	-104	-372	-357		2	*403
-5.000	-010	-000	-025	-307	-381	-357		3	*381
-4.500	-005	-005	-146	-353	-386	-357		4	*401
-4.000	-174	-218	-338	-340	-389	-357	-127	5	*432
-3.500	-318	-328	-375	-359	-386	-355	-329	6	*511
-3.000	-318	-343	-360	-356	-377	-343	-360	7	*425
-2.750	-325	-405	-375	-356	-367	-343	-360	8	-226
-2.500	-345	-362	-375	-349	-353	-355	-362	9	-233
-2.250	-387	-380	-372	-343	-345	-360	-369	10	-228
-2.000	-340	-367	-362	-340	-336	-372	-372	11	-238
-1.750	-380	-357	-357	-327	-338	-386	-362	12	*453
-1.500	-345	-355	-338	-327	-343	-405	-362	13	*415
-1.250	-290	-343	-330	-320	-353	-432	-353	14	*389
-1.000	-318	-338	-324	-324	-367	-458	-338	15	*415
-0.750	-328	-328	-320	-333	-393	-485	-326	16	*449
-0.625	-320	-333	-330	-349	-408	-494	-326	17	*530
-0.500	-343	-343	-330	-362	-425	-509	-345	18	*600
-0.375	-343	-367	-359	-398	-453	-513	-377	19	-226
-0.250	-380	-410	-404	-472	-489	-501	-422	20	-223
-0.125	-459		-469		-480		-489	21	-221
-0.000	-454	-474	-450	-456	-475	-487	-489	22	-218
$\Delta = 233^\circ$									
-250	-253	-228	-246	-223					
-375	-241	-238	-249	-246	-223				
-500	-248	-233	-249	-239	-223				
-750	-243	-238	-223	-210	-223	-216	-221		
1.000	-233	-032	-239	-239	-223	-216	-216		
1.250	-216	-206	-214	-214	-223	-216	-194		
1.500	-201	-179	-204	-204	-223	-211	-170		
1.750	-313	-156	-191	-185	-226	-211	-142		
2.000	-149	-139	-026	-175	-211	-211	-130		
2.250	-132	-117	-120	-161	-206	-218	-108		
2.500	-107	-099	-120	-151	-194	-211	-091		
2.750	-099	-089	-113	-127	-190	-211	-082		
3.000	-089	-070	-120	-108	-178	-216	-067		
3.500	-070	-045	-045	-089	-146	-216			
4.000	-060	-042	-068	-065	-130	-216			
4.500	-050	-040	-058	-043	-118	-209			
5.000	-042	-035	-049	-036	-108	-194			
5.500	-040	-017	-042	-031	-082	-182			
6.000	-022	-015	-036	-026	-060	-161			
$\Delta = 15^\circ$									
-6.000	-002	-007	-015	-006	-379	-288		1	*458
-5.500	-005	-005	-015	-152	-403	-276		2	*410
-5.000	-002	-012	-040	-320	-391	-293		3	*384
-4.500	-010	-037	-256	-353	-384	-302		4	*405
-4.000	-216	-283	-353	-320	-372	-300	-223	5	*453
-3.500	-300	-313	-345	-320	-360	-297	-321	6	*547
-3.000	-305	-325	-320	-320	-350	-297	-338	7	*461
-2.750	-313	-377	-343	-320	-343	-307	-345	8	-233
-2.500	-323	-328	-346	-320	-341	-309	-353	9	-242
-2.250	-370	-348	-343	-320	-336	-317	-345	10	-233
-2.000	-318	-333	-343	-307	-321	-314	-341	11	-240
-1.750	-357	-333	-343	-320	-326	-331	-345	12	*425
-1.500	-329	-320	-318	-217	-326	-348	-326	13	*379
-1.250	-298	-315	-315	-298	-321	-379	-324	14	*360
-1.000	-290	-298	-294	-298	-323	-410	-312	15	*391
-0.750	-300	-290	-294	-314	-362	-461	-302	16	*427
-0.625	-300	-298	-291	-333	-389	-480	-307	17	*521
-0.500	-325	-333	-314	-349	-420	-497	-314	18	*581
-0.375	-343	-353	-346	-395	-461	-516	-328	19	-211
-0.250	-390	-412	-401	-476	-516	-516	-386	20	-223
-0.125	-487	-476	-521		-465			21	-216
-0.000	-447	-457	-437	-450	-480	-485	-491	22	-209
$\Delta = 233^\circ$									
-250	-241	-233	-239	-207					
-375	-226	-243	-246	-233	-209				
-500	-246	-231	-246	-233	-209				
-750	-233	-238	-223	-207	-209	-216			
1.000	-226	-032	-243	-223	-214	-216			
1.250	-206	-204	-217	-206	-211	-216	-209		
1.500	-191	-179	-207	-197	-211	-214	-182		
1.750	-320	-164	-188	-178	-211	-216	-168		
2.000	-134	-144	-029	-168	-199	-202	-146		
2.250	-117	-124	-126	-151	-199	-209	-127		
2.500	-104	-109	-123	-142	-190	-209	-113		
2.750	-097	-097	-110	-113	-180	-211	-098		
3.000	-087	-082	-107	-101	-173	-211	-084		
3.500	-077	-055	-042	-079	-154	-211			
4.000	-057	-045	-065	-062	-130	-199			
4.500	-050	-040	-055	-048	-113	-197			
5.000	-037	-037	-049	-038	-096	-202			
5.500	-037	-020	-042	-026	-082	-187			
6.000	-015	-015	-036	-017	-067	-170			

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Table 19 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 2.01$ $R = 0.12 \times 10^6$

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 30^\circ$									
-6.000	.002	.005	.025	.003	.353	.293			1 .326
-5.500	.005	.002	.020	.152	.372	.240			2 .276
-5.000	.052	.027	.151	.314	.357	.226			3 .245
-4.500	.241	.248	.318	.346	.329	.209			4 .211
-4.000	.283	.293	.338	.314	.290	.199	.276		5 .205
-3.500	.290	.290	.330	.298	.252	.190	.276		6 .291
-3.000	.221	.283	.300	.269	.216	.185	.276		7 .297
-2.750	.261	.338	.303	.249	.218	.185	.276		8 .211
-2.500	.263	.278	.288	.210	.204	.190	.281		9 .226
-2.250	.308	.285	.266	.210	.192	.204	.273		10 .218
-2.000	.231	.256	.241	.191	.185	.211	.271		11 .228
-1.750	.276	.238	.231	.184	.182	.228	.264		12 .238
-1.500	.216	.211	.199	.181	.187	.249	.261		13 .309
-1.250	.169	.194	.184	.165	.194	.276	.249		14 .293
-1.000	.171	.179	.171	.181	.209	.307	.240		15 .314
-0.750	.179	.179	.181	.191	.242	.357	.230		16 .341
-0.625	.181	.179	.181	.214	.264	.377	.235		17 .384
-0.500	.209	.194	.197	.249	.295	.398	.242		18 .369
-0.375	.223	.228	.236	.291	.343	.391	.261		19 .202
-0.250	.273	.283	.298	.372	.391	.381	.307		20 .194
-0.125	.355		.353		.381		.379		21 .180
0.000	.335		.333	.326	.357	.357	.360		22 .178
$\Delta = 45^\circ$									
-6.000	-.015	.007	.017	.003	.360				1 .326
-5.500	-.012	.000	.007	.000	.309	.302			2 .259
-5.000	.074	.010	.027	.171	.369	.216			3 .320
-4.500	.201	.199	.243	.291	.355	.192			4 .264
-4.000	.231	.253	.283	.278	.297	.163	.247		5 .293
-3.500	.236	.268	.288	.269	.235	.149	.238		6 .379
-3.000	.139	.246	.253	.210	.197	.182	.221		7 .249
-2.750	.199	.283	.241	.191	.185	.211	.204		8 .199
-2.500	.184	.156	.175	.190	.204	.187	.180		9 .211
-2.250	.323	.137	.162	.175	.194	.182	.161		10 .144
-2.000	.144	.122	.013	.166	.187	.175	.144		11 .132
-1.750	.124	.117	.100	.149	.185	.175	.118		12 .118
-1.500	.099	.099	.094	.142	.175	.175	.103		13 .103
-1.250	.079	.084	.107	.118	.170	.182			14 .091
-1.000	.067	.067	.097	.108	.163	.199			15 .091
-0.750	.050	.052	.042	.039	.154	.194			16 .209
-0.500	.020	.035	.058	.077	.137	.182			17 .218
-0.250	.020	.025	.055	.062	.120	.190			18 .204
0.000	.015	.000	.042	.050	.108	.182			19 .194
0.250	.020	.012	.039	.041	.094	.175			20 .180
0.500	.007	.010	.036	.029	.086	.156			21 .178
0.750	.007	.010	.027	.049					

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Table 19 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 2.01$ $R = 0.12 \times 10^6$

x , in.	Plate								Spoiler Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	-0.012	-0.012	0.002	-0.016	0.000	0.120			1 .343
-5.500	-0.025	-0.012	0.002	-0.010	0.005	0.281			2 .357
-5.000	-0.015	-0.012	0.002	-0.019	0.058	0.257			3 .341
-4.500	-0.010	-0.017	0.005	-0.006	0.209	0.190			4 .357
-4.000	-0.079	0.020	0.060	-0.136	0.226	0.149	0.158		5 .362
-3.500	0.151	0.154	0.184	0.191	0.211	0.134	0.166		6 .343
-3.000	0.117	0.181	0.199	0.188	0.185	0.202	0.170		7 .036
-2.750	0.169	0.248	0.204	0.175	0.163	0.264	0.158		8 .194
-2.500	0.179	0.186	0.201	0.165	0.142	0.324	0.163		9 .204
-2.250	0.221	0.196	0.191	0.152	0.142	0.372	0.163		10 .202
-2.000	0.144	0.176	0.179	0.129	0.142	0.389	0.156		11 .233
-1.750	0.194	0.161	0.156	0.113	0.175	0.403	0.146		12 .254
-1.500	0.134	0.129	0.122	0.126	0.252	0.390	0.127		13 .242
-1.250	0.107	0.129	0.117	0.152	0.321	0.396	0.110		14 .240
-1.000	0.112	0.134	0.159	0.246	0.355	0.384	0.120		15 .271
-0.750	0.206	0.223	0.269	0.327	0.377	0.384	0.144		16 .281
-0.625	0.263	0.278	0.294	0.340	0.379	0.372	0.173		17 .290
-0.500	0.318	0.313	0.311	0.340	0.377	0.372	0.194		18 .192
-0.375	0.318	0.345	0.333	0.349	0.360	0.365	0.226		19 .190
-0.250	0.325	0.348	0.333	0.379	0.372	0.365	0.240		20 .178
-0.125	0.345	0.345	0.336	0.362	0.362	0.254	0.21		21 .139
0.000	0.256	0.276	0.256	0.259	0.261	0.257	0.247		22 .149
$\Delta = 75^\circ$									
-6.000	0.005	0.007	0.017	0.006	0.026	0.017			1 .118
-5.500	0.005	0.002	0.015	0.000	0.026	0.108			2 .118
-5.000	0.002	0.005	0.012	-0.006	0.026	0.166			3 .118
-4.500	0.000	0.007	0.017	0.006	0.086	0.170			4 .110
-4.000	0.027	0.017	0.027	0.029	0.132	0.149	0.082		5 .106
-3.500	0.060	0.065	0.077	0.097	0.149	0.125	0.074		6 .086
-3.000	0.005	0.092	0.107	0.107	0.137	0.125	0.074		7 .106
-2.750	0.082	0.179	0.201	0.192	0.182	0.163	0.170		
-2.500	0.218	0.171	0.197	0.206	0.182	0.158	0.156		
-1.500	0.278	0.186	0.191	0.194	0.182	0.146	0.146		
1.000	-0.236	-0.050	-0.024	-0.201	-0.185	-0.170	-0.175		
1.250	-0.228	-0.179	-0.201	-0.192	-0.182	-0.163	-0.170		
1.500	-0.218	-0.171	-0.197	-0.206	-0.182	-0.163	-0.170		
1.750	-0.278	-0.186	-0.191	-0.194	-0.182	-0.166	-0.166		
2.000	-0.184	-0.184	-0.068	-0.182	-0.170	-0.132	-0.149		
2.250	-0.141	-0.151	-0.171	-0.173	-0.166	-0.118	-0.146		
2.500	-0.087	-0.119	-0.159	-0.163	-0.161	-0.108	-0.146		
2.750	-0.052	-0.072	-0.159	-0.142	-0.166	-0.110	-0.142		
3.000	-0.032	-0.032	-0.142	-0.166	-0.154	-0.158	-0.130		
3.500	-0.030	-0.002	-0.042	-0.149	-0.156	-0.178			
4.000	-0.027	0.012	-0.023	-0.125	-0.149	-0.161			
4.500	-0.022	0.002	-0.006	-0.094	-0.137	-0.199			
5.000	-0.020	0.002	-0.006	-0.046	-0.127	-0.204			
5.500	-0.042	0.002	-0.013	-0.022	-0.118	-0.190			
6.000	-0.022	0.012	-0.013	-0.050	-0.108	-0.185			
$\Delta = 75^\circ$									
-6.000	0.005	0.007	0.017	0.006	0.026	0.017			1 .118
-5.500	0.005	0.002	0.015	0.000	0.026	0.108			2 .118
-5.000	0.002	0.005	0.012	-0.006	0.026	0.166			3 .118
-4.500	0.000	0.007	0.017	0.006	0.086	0.170			4 .110
-4.000	0.027	0.017	0.027	0.029	0.132	0.149	0.082		5 .106
-3.500	0.060	0.065	0.077	0.097	0.149	0.125	0.074		6 .086
-3.000	0.005	0.092	0.107	0.107	0.137	0.125	0.074		7 .106
-2.750	0.082	0.171	0.112	0.107	0.127	0.127	0.074		8 .142
-2.500	0.082	0.102	0.107	0.094	0.118	0.127	0.074		9 .149
-2.000	0.149	0.117	0.109	0.091	0.106	0.127	0.084		10 .149
-1.750	0.084	0.099	0.104	0.097	0.098	0.127	0.082		11 .175
-1.500	0.137	0.102	0.102	0.084	0.108	0.130	0.082		12 .089
-1.250	0.084	0.092	0.077	0.078	0.115	0.130	0.082		13 .089
-1.000	0.065	0.092	0.074	0.078	0.118	0.130	0.074		14 .096
-0.750	0.089	0.097	0.100	0.104	0.134	0.125	0.074		15 .096
-0.625	0.092	0.104	0.100	0.110	0.132	0.125	0.079		16 .082
-0.500	0.132	0.104	0.097	0.100	0.132	0.125	0.079		17 .024
-0.375	0.094	0.117	0.104	0.116	0.130	0.125	0.091		18 .144
-0.250	0.104	0.112	0.100	0.165	0.127	0.125	0.091		19 .108
-0.125	0.104	0.100	0.100	0.127	0.127	0.098	0.098		20 .031
0.000	0.124	0.137	0.129	0.136	0.144	0.146	0.094		21 .070
$\Delta = 75^\circ$									
-6.000	-0.154	-0.132	-0.139	-0.123	-0.126	-0.103			1 .151
-5.500	-0.139	-0.129	-0.136	-0.126	-0.126	-0.098			2 .146
-5.000	-0.189	-0.154	-0.133	-0.120	-0.126	-0.098			3 .149
-4.500	-0.204	-0.166	-0.139	-0.120	-0.126	-0.091	-0.086		4 .127
-4.000	-0.161	-0.202	-0.168	-0.152	-0.122	-0.067	-0.101		5 .101
-3.500	-0.114	-0.207	-0.123	-0.156	-0.113	-0.048	-0.058		6 .058
-3.000	-0.099	-0.015	-0.084	-0.142	-0.125	-0.024	-0.017		7 .017
-2.750	-0.057	0.002	-0.055	-0.115	-0.108	-0.007	0.024		8 .024
-2.500	-0.047	-0.025	-0.068	-0.089	-0.086	-0.036	0.038		9 .038
-2.250	-0.025	-0.040	0.000	-0.067	-0.055	0.043	0.031		10 .031
-2.000	-0.002	-0.032	0.016	-0.046	-0.036	0.034	0.012		11 .012
-1.750	-0.020	-0.030	0.006	-0.029	-0.026	0.012	0.005		12 .005
-1.500	-0.022	-0.022	0.006	-0.019	-0.005	-0.098	-0.012		13 .012
-1.250	-0.005	0.000	0.045	-0.007	0.034	-0.103			14 .000
-1.000	-0.005	0.012	0.013	-0.007	0.036	-0.077			15 .000
-0.750	-0.020	0.012	0.006	0.002	0.026	-0.142			16 .000
-0.500	-0.020	0.015	-0.003	0.002	0.050	-0.166			17 .000
-0.375	-0.045	0.017	-0.003	0.005	0.070	-0.166			18 .000
-0.250	-0.045	0.012	-0.006	0.005	0.053	-0.146			19 .000

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Table 20
Plate and Spoiler Pressure Coefficients
Configuration 2 $M = 2.01$ $R = 0.30 \times 10^6$

$x, \text{in.}$	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 00^\circ$									
-6.000	-0.001	-0.002	0.009	0.010	0.327	0.304		1	0.450
-5.500	-0.000	-0.001	0.011	0.223	0.343	0.307		2	0.392
-5.000	-0.001	-0.002	0.024	0.302	0.350	0.307		3	0.374
-4.500	-0.001	-0.020	0.272	0.327	0.355	0.307		4	0.401
-4.000	-0.246	-0.273	0.327	0.333	0.358	0.306	0.201	5	0.455
-3.500	-0.312	-0.319	0.347	0.338	0.358	0.308	0.314	6	0.550
-3.000	-0.328	-0.336	0.352	0.343	0.354	0.313	0.333	7	0.482
-2.750	-0.336	-0.347	0.349	0.343	0.348	0.316	0.338	8	0.263
-2.500	-0.339	-0.343	0.349	0.342	0.339	0.321	0.343	9	0.263
-2.250	-0.347	-0.349	0.348	0.338	0.334	0.326	0.344	10	0.263
-2.000	-0.336	-0.348	0.345	0.333	0.329	0.334	0.347	11	0.263
-1.750	-0.349	-0.345	0.339	0.325	0.322	0.350	0.344	12	0.479
-1.500	-0.339	-0.337	0.325	0.313	0.326	0.367	0.335	13	0.403
-1.250	-0.327	-0.327	0.313	0.309	0.333	0.396	0.321	14	0.381
-1.000	-0.313	-0.316	0.316	0.309	0.348	0.425	0.308	15	0.426
-0.750	-0.310	-0.316	0.316	0.325	0.374	0.467	0.301	16	0.498
-0.625	-0.315	-0.321	0.324	0.338	0.395	0.485	0.309	17	0.637
-0.500	-0.328	-0.329	0.343	0.361	0.423	0.504	0.324	18	0.758
-0.375	-0.351	-0.359	0.371	0.396	0.458	0.520	0.359	19	0.265
-0.250	-0.397	-0.407	0.418	0.450	0.505	0.524	0.425	20	0.265
-0.125	-0.480		0.494		0.517		0.520	21	0.265
0.000	-0.485	-0.490	0.485	0.482	0.497	0.498	0.527	22	0.265
$\Delta = 15^\circ$									
-6.000	-0.002	-0.000	0.006	0.184	0.324	0.252		1	0.431
-5.500	-0.003	-0.003	0.023	0.298	0.333	0.242		2	0.379
-5.000	-0.003	-0.006	0.227	0.314	0.338	0.234		3	0.363
-4.500	-0.110	-0.204	0.299	0.318	0.336	0.244		4	0.387
-4.000	-0.271	-0.281	0.309	0.317	0.331	0.251	0.274	5	0.439
-3.500	-0.297	-0.295	0.315	0.313	0.326	0.266	0.309	6	0.522
-3.000	-0.291	-0.299	0.304	0.312	0.320	0.276	0.319	7	0.432
-2.750	-0.307	-0.311	0.305	0.308	0.317	0.280	0.320	8	0.260
-2.500	-0.309	-0.306	0.308	0.303	0.313	0.285	0.327	9	0.260
-2.250	-0.316	-0.309	0.305	0.302	0.309	0.286	0.322	10	0.260
-2.000	-0.308	-0.306	0.306	0.300	0.307	0.283	0.325	11	0.260
-1.750	-0.321	-0.310	0.303	0.299	0.299	0.291	0.322	12	0.421
-1.500	-0.310	-0.307	0.296	0.295	0.291	0.303	0.314	13	0.365
-1.250	-0.301	-0.299	0.289	0.284	0.293	0.322	0.303	14	0.346
-1.000	-0.287	-0.288	0.285	0.280	0.303	0.358	0.292	15	0.374
-0.750	-0.285	-0.282	0.282	0.291	0.324	0.405	0.287	16	0.426
-0.625	-0.289	-0.288	0.294	0.304	0.347	0.431	0.291	17	0.523
-0.500	-0.307	-0.311	0.311	0.329	0.378	0.461	0.301	18	0.604
-0.375	-0.329	-0.331	0.342	0.365	0.422	0.484	0.325	19	0.252
-0.250	-0.391	-0.382	0.392	0.421	0.472	0.493	0.377	20	0.252
-0.125	-0.463		0.470		0.492		0.450	21	0.252
0.000	-0.464	-0.465	0.464	0.464	0.477	0.474	0.450	22	0.252
$\Delta = 15^\circ$									
-6.000	-0.002	-0.000	0.006	0.184	0.324	0.252		1	0.431
-5.500	-0.003	-0.003	0.023	0.298	0.333	0.242		2	0.379
-5.000	-0.003	-0.006	0.227	0.314	0.338	0.234		3	0.363
-4.500	-0.110	-0.204	0.299	0.318	0.336	0.244		4	0.387
-4.000	-0.271	-0.281	0.309	0.317	0.331	0.251	0.274	5	0.439
-3.500	-0.297	-0.295	0.315	0.313	0.326	0.266	0.309	6	0.522
-3.000	-0.291	-0.299	0.304	0.312	0.320	0.276	0.319	7	0.432
-2.750	-0.307	-0.311	0.305	0.308	0.317	0.280	0.320	8	0.260
-2.500	-0.309	-0.306	0.308	0.303	0.313	0.285	0.327	9	0.260
-2.250	-0.316	-0.309	0.305	0.302	0.309	0.286	0.322	10	0.260
-2.000	-0.308	-0.306	0.306	0.300	0.307	0.283	0.325	11	0.260
-1.750	-0.321	-0.310	0.303	0.299	0.299	0.291	0.322	12	0.421
-1.500	-0.310	-0.307	0.296	0.295	0.291	0.303	0.314	13	0.365
-1.250	-0.301	-0.299	0.289	0.284	0.293	0.322	0.303	14	0.346
-1.000	-0.287	-0.288	0.285	0.280	0.303	0.358	0.292	15	0.374
-0.750	-0.285	-0.282	0.282	0.291	0.324	0.405	0.287	16	0.426
-0.625	-0.289	-0.288	0.294	0.304	0.347	0.431	0.291	17	0.523
-0.500	-0.307	-0.311	0.311	0.329	0.378	0.461	0.301	18	0.604
-0.375	-0.329	-0.331	0.342	0.365	0.422	0.484	0.325	19	0.252
-0.250	-0.391	-0.382	0.392	0.421	0.472	0.493	0.377	20	0.252
-0.125	-0.463		0.470		0.492		0.450	21	0.252
0.000	-0.464	-0.465	0.464	0.464	0.477	0.474	0.450	22	0.252

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Table 20 Continued
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 2.01$ $R = 0.30 \times 10^6$

Plate								Spout	
x, in.	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.	
$\Delta = 30^\circ$									
-6.000	.005	.002	.011	.085	.323	.254		1	.311
-5.500	.016	.007	.090	.287	.332	.215		2	.250
-5.000	.213	.212	.278	.305	.320	.192		3	.222
-4.500	.269	.275	.306	.305	.290	.188		4	.238
-4.000	.273	.280	.297	.289	.247	.179		5	.290
-3.500	.269	.272	.288	.262	.213	.161		6	.366
-3.000	.193	.263	.264	.228	.189	.158		7	.286
-2.750	.256	.260	.246	.210	.178	.165		8	.242
-2.500	.246	.243	.230	.193	.170	.173		9	.252
-2.250	.244	.232	.211	.183	.164	.186		10	.253
-2.000	.225	.216	.200	.170	.164	.195		11	.252
-1.750	.220	.200	.185	.166	.163	.211		12	.313
-1.500	.194	.183	.164	.159	.167	.227		13	.274
-1.250	.171	.169	.155	.151	.170	.250		14	.266
-1.000	.153	.157	.153	.153	.185	.283		15	.278
-8.750	.154	.150	.152	.162	.218	.330		16	.308
-6.625	.157	.153	.159	.177	.239	.350		17	.350
-5.500	.170	.180	.179	.205	.273	.372		18	.340
-3.375	.192	.198	.213	.249	.320	.384		19	.229
-2.500	.251	.257	.272	.314	.369	.376		20	.227
-1.125	.352		.357		.372			21	.226
.000	.345	.346	.347	.347	.356	.356		22	.232
.250	-249	-249	-251	-242			-227		
.375	-254	-254	-254	-247	-228		-227		
.500	-260	-254	-258	-251	-228		-228		
.750	-247	-249	-251	-247	-228	-227	-227		
1.000	-228	-183	-245	-247	-228	-228	-226		
1.250	-203	-206	-223	-220	-228	-224	-210		
1.500	-185	-178	-202	-206	-228	-224	-189		
1.750	-157	-155	-182	-189	-222	-224	-173		
2.000	-135	-134	-133	-175	-214	-224	-151		
2.250	-110	-117	-137	-162	-208	-220	-135		
2.500	-081	-097	-117	-147	-199	-220	-120		
2.750	-061	-086	-107	-144	-220	-220	-105		
3.000	-050	-070	-093	-120	-180	-223	-093		
3.500	-049	-052	-062	-101	-163	-218			
4.000	-044	-032	-062	-084	-145	-212			
4.500	-037	-024	-050	-047	-128	-204			
5.000	-033	-021	-043	-057	-116	-195			
5.500	-037	-017	-040	-046	-104	-185			
6.000	-035	-016	-035	-039	-091	-173			
$\Delta = 45^\circ$									
-6.000	.002	-.001	.011	.003	.207	.305		1	.324
-5.500	.004	-.001	.012	.046	.311	.221		2	.293
-5.000	.192	.103	.170	.263	.313	.177		3	.243
-4.500	.246	.245	.275	.286	.288	.162		4	.227
-4.000	.251	.256	.277	.276	.243	.169		5	.269
-3.500	.243	.249	.269	.250	.200	.152		6	.343
-3.000	.135	.235	.245	.208	.171	.173		7	.279
-2.750	.221	.232	.222	.183	.158	.204		8	.233
-2.500	.199	.203	.198	.160	.154	.231		9	.238
-2.250	.221	.222	.222	.183	.158	.204		10	.245
-2.000	.186	.183	.172	.144	.149	.265		11	.243
-1.750	.148	.156	.150	.128	.141	.294		12	.210
-1.500	.142	.135	.134	.121	.143	.326		13	.163
-1.250	.115	.116	.117	.116	.154	.352		14	.136
-1.000	.085	.105	.105	.113	.182	.371		15	.156
-7.750	.074	.102	.112	.128	.225	.386		16	.191
-6.625	.107	.112	.137	.178	.286	.401		17	.249
-5.500	.130	.135	.164	.215	.315	.396		18	.274
-3.375	.169	.193	.211	.260	.343	.390		19	.212
-2.500	.225	.240	.269	.309	.364	.378		20	.206
-1.125	.292	.301	.320	.345	.376	.364		21	.168
.000	.340		.344		.356			22	.166
.231	.331	.329	.334	.331	.343	.339			
$\Delta = 45^\circ$									
.250	-236	-234	-233	-235			-193		
.375	-233	-232	-236	-236	-213		-203		
.500	-241	-231	-235	-232	-208		-205		
.750	-256	-228	-218	-226	-207	-200	-205		
1.000	-255	-189	-193	-226	-213	-183	-214		
1.250	-200	-213	-157	-186	-219	-154	-206		
1.500	-176	-177	-129	-161	-227	-139	-187		
1.750	-184	-158	-122	-150	-221	-129	-159		
2.000	-187	-147	-098	-147	-210	-125	-140		
2.250	-196	-138	-112	-143	-191	-130	-119		
2.500	-222	-133	-108	-137	-162	-143	-105		
2.750	-233	-125	-104	-125	-145	-163	-090		
3.000	-223	-111	-103	-108	-145	-210	-075		
3.500	-148	-105	-088	-076	-145	-188			
4.000	.062	-126	.093	.059	-139	-183			
4.500	.050	-045	.094	.054	-111	-205			
5.000	.038	-079	.094	.050	-107	-179			
5.500	.022	-051	.092	.042	-098	-182			
6.000	.013	-039	.071	.033	-080	-162			

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Table 20 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 2 $M = 2.01$ $R = 0.30 \times 10^6$

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	.006	.003	.010	.001	.019	.226		1	.378
-5.500	.006	.002	.012	.003	.026	.267		2	.378
-5.000	.009	.004	.011	.000	.174	.201		3	.378
-4.500	.023	.002	.014	.077	.235	.123		4	.377
-4.000	.152	.116	.144	.195	.232	.109	.183	5	.372
-3.500	.189	.198	.204	.205	.192	.137	.187	6	.354
-3.000	.111	.196	.210	.200	.123	.260	.191	7	.026
-2.750	.196	.206	.202	.179	.108	.340	.188	8	.226
-2.500	.195	.197	.190	.140	.108	.406	.180	9	.229
-2.250	.188	.184	.160	.108	.117	.427	.164	10	.234
-2.000	.146	.145	.119	.092	.150	.435	.136	11	.254
-1.750	.120	.106	.106	.097	.218	.434	.107	12	.301
-1.500	.092	.089	.091	.122	.317	.425	.095	13	.305
-1.250	.102	.101	.120	.204	.380	.419	.101	14	.306
-1.000	.125	.166	.224	.316	.399	.412	.134	15	.318
-0.750	.282	.297	.336	.374	.405	.408	.203	16	.325
-0.625	.337	.341	.365	.380	.402	.401	.240	17	.315
-0.500	.369	.361	.372	.374	.395	.399	.270	18	.215
-0.375	.368	.373	.378	.383	.390	.393	.290	19	.200
-0.250	.373	.369	.375	.384	.395	.389	.300	20	.193
-0.125	.379		.374		.384		.306	21	.182
.000	.371	.369	.367	.367	.378	.380	.303	22	.176
$\Delta = 75^\circ$									
-6.000	.001	-.001	.011	.003	.020	.020		1	.117
-5.500	.001	-.001	.009	.000	.021	.133		2	.117
-5.000	.003	-.002	.010	.000	.023	.165		3	.117
-4.500	.006	-.002	.009	.005	.093	.154		4	.111
-4.000	.029	.008	.020	.043	.133	.119	.074	5	.104
-3.500	.067	.055	.078	.095	.139	.125	.078	6	.089
-3.000	.003	.086	.104	.108	.129	.135	.076	7	.111
-2.750	.086	.101	.101	.104	.118	.137	.077	8	.158
-2.500	.085	.091	.098	.097	.098	.135	.082	9	.162
-2.250	.097	.094	.096	.097	.095	.140	.076	10	.165
-2.000	.082	.088	.095	.086	.105	.135	.079	11	.183
-1.750	.093	.089	.088	.068	.117	.139	.076	12	.093
-1.500	.080	.080	.065	.076	.122	.137	.079	13	.097
-1.250	.085	.063	.068	.089	.127	.134	.067	14	.095
-1.000	.053	.080	.094	.102	.132	.133	.059	15	.095
-0.750	.091	.095	.106	.111	.135	.135	.076	16	.087
-0.625	.099	.101	.113	.112	.138	.134	.084	17	.074
-0.500	.113	.116	.116	.117	.135	.133	.089	18	.008
-0.375	.106	.112	.119	.119	.131	.129	.095	19	.164
-0.250	.109	.112	.113	.112	.135	.129	.097	20	.116
-0.125	.111		.117		.129		.098	21	.040
.000	.142	.145	.146	.140	.154	.152	.098	22	.084
$\Delta = 75^\circ$									
-6.000	.001	-.001	.011	.003	.020	.020		1	.117
-5.500	.001	-.001	.009	.000	.021	.133		2	.117
-5.000	.003	-.002	.010	.000	.023	.165		3	.117
-4.500	.006	-.002	.009	.005	.093	.154		4	.111
-4.000	.029	.008	.020	.043	.133	.119	.074	5	.104
-3.500	.067	.055	.078	.095	.139	.125	.078	6	.089
-3.000	.003	.086	.104	.108	.129	.135	.076	7	.111
-2.750	.086	.101	.101	.104	.118	.137	.077	8	.158
-2.500	.085	.091	.098	.097	.098	.135	.082	9	.162
-2.250	.097	.094	.096	.097	.095	.140	.076	10	.165
-2.000	.082	.088	.095	.086	.105	.135	.079	11	.183
-1.750	.093	.089	.088	.068	.117	.139	.076	12	.093
-1.500	.080	.080	.065	.076	.122	.137	.079	13	.097
-1.250	.085	.063	.068	.089	.127	.134	.067	14	.095
-1.000	.053	.080	.094	.102	.132	.133	.059	15	.095
-0.750	.091	.095	.106	.111	.135	.135	.076	16	.087
-0.625	.099	.101	.113	.112	.138	.134	.084	17	.074
-0.500	.113	.116	.116	.117	.135	.133	.089	18	.008
-0.375	.106	.112	.119	.119	.131	.129	.095	19	.164
-0.250	.109	.112	.113	.112	.135	.129	.097	20	.116
-0.125	.111		.117		.129		.098	21	.040
.000	.142	.145	.146	.140	.154	.152	.098	22	.084
$\Delta = 75^\circ$									
-6.000	.001	-.001	.011	.003	.020	.020		1	.117
-5.500	.001	-.001	.009	.000	.021	.133		2	.117
-5.000	.003	-.002	.010	.000	.023	.165		3	.117
-4.500	.006	-.002	.009	.005	.093	.154		4	.111
-4.000	.029	.008	.020	.043	.133	.119	.074	5	.104
-3.500	.067	.055	.078	.095	.139	.125	.078	6	.089
-3.000	.003	.086	.104	.108	.129	.135	.076	7	.111
-2.750	.086	.101	.101	.104	.118	.137	.077	8	.158
-2.500	.085	.091	.098	.097	.098	.135	.082	9	.162
-2.250	.097	.094	.096	.097	.095	.140	.076	10	.165
-2.000	.082	.088	.095	.086	.105	.135	.079	11	.183
-1.750	.093	.089	.088	.068	.117	.139	.076	12	.093
-1.500	.080	.080	.065	.076	.122	.137	.079	13	.097
-1.250	.085	.063	.068	.089	.127	.134	.067	14	.095
-1.000	.053	.080	.094	.102	.132	.133	.059	15	.095
-0.750	.091	.095	.106	.111	.135	.135	.076	16	.087
-0.625	.099	.101	.113	.112	.138	.134	.084	17	.074
-0.500	.113	.116	.116	.117	.135	.133	.089	18	.008
-0.375	.106	.112	.119	.119	.131	.129	.095	19	.164
-0.250	.109	.112	.113	.112	.135	.129	.097	20	.116
-0.125	.111		.117		.129		.098	21	.040
.000	.142	.145	.146	.140	.154	.152	.098	22	.084

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Table 21
Plate and Spoiler Pressure Coefficients
Configuration 3 M = 2.01 R = 0.30 x 10⁶

x, in.	Plate							Spoiler Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	
$\Delta = 00^\circ$								
-6.000	-002	-001	.010	-003	.016	.316		1 .422
-5.000	.001	-004	.011	-003	.112	.329		2 .383
-4.500	.002	-002	.011	.000	.274	.338		3 .375
-4.000	.002	-001	.010	.104	.333	.338	.003	4 .391
-3.500	.004	-002	.016	.280	.343	.336	.001	5 .434
-3.000	.017	.096	.269	.314	.347	.332	.002	6 .489
-2.750	.209	.245	.301	.323	.350	.327	.168	7 .572
-2.500	.275	.289	.315	.328	.351	.322	.272	8 .260
-2.250	.313	.328	.334	.351	.322	.306	.10	9 .260
-2.000	.317	.324	.335	.337	.349	.321	.320	10 .260
-1.750	.335	.331	.339	.341	.344	.324	.331	11 .424
-1.500	.336	.335	.337	.339	.338	.329	.336	12 .381
-1.250	.331	.338	.334	.333	.334	.335	.341	13 .368
-1.000	.338	.335	.329	.321	.327	.352	.335	14 .387
-0.750	.327	.325	.316	.317	.335	.375	.325	15 .427
-0.625	.321	.318	.314	.320	.343	.389	.315	16 .497
-0.500	.319	.309	.317	.328	.358	.408	.311	17 .578
-0.375	.321	.325	.330	.344	.381	.436	.323	18 .263
-0.250	.346	.350	.356	.379	.421	.463	.347	19 .263
-0.125	.406		.416		.466		.416	20 .263
.000	.456	.458	.454	.454	.466	.461	.460	21 .263
								22 .263
.250	-262	-259	-263	-258			-261	
.375	-261	-263	-269	-262	-249		-262	
.500	-265	-261	-269	-262	-253		-265	
.750	-251	-252	-262	-258	-253	-255	-246	
1.000	-211	-175	-229	-247	-253	-256	-205	
1.250	-169	-167	-183	-200	-247	-256	-161	
1.500	-135	-126	-148	-169	-237	-256	-128	
1.750	-002	.096	-121	-147	-222	-253	-098	
2.000	.082	.077	-082	-125	-200	-253	-079	
2.250	.065	-060	-084	-108	-159	-253	-062	
2.500	.050	.047	-071	-082	-136	-253	-052	
2.750	.041	.037	-063	-058	-138	-246	-045	
3.000	.035	.032	-055	-049	-122	-233	-039	
3.500	.030	.021	-036	-038	-094	-213		
4.000	.026	.018	-033	-027	-072	-203		
4.500	.022	.016	-031	-018	-062	-174		
5.000	.020	.016	-026	-015	-051	-153		
5.500	.022	.012	-027	-011	-042	-131		
6.000	.021	.011	-024	-007	-031	-110		
$\Delta = 15^\circ$								
-6.000	.001	.000	.013	.003	.025	.308		1 .399
-5.500	.001	-001	.013	-001	.203	.324		2 .361
-5.000	.000	-002	.009	-003	.299	.331		3 .348
-4.500	.000	-002	.012	.006	.318	.325		4 .358
-4.000	.000	-001	.012	.175	.317	.313	.007	5 .389
-3.500	.001	.004	.028	.278	.316	.309	.006	6 .435
-3.000	.062	.131	.269	.302	.326	.309	.084	7 .503
-2.750	.230	.253	.289	.307	.328	.306	.234	8 .254
-2.500	.276	.286	.304	.312	.333	.299	.279	9 .254
-2.250	.303	.305	.311	.316	.335	.294	.293	10 .254
-2.000	.299	.312	.317	.323	.333	.291	.306	11 .254
-1.750	.318	.319	.322	.326	.327	.297	.312	12 .388
-1.500	.316	.320	.319	.324	.316	.304	.317	13 .354
-1.250	.293	.321	.319	.314	.308	.314	.319	14 .344
-1.000	.313	.318	.310	.301	.302	.330	.315	15 .359
-0.750	.303	.305	.293	.290	.311	.355	.306	16 .386
-0.625	.296	.297	.290	.296	.318	.369	.299	17 .441
-0.500	.294	.261	.290	.302	.334	.385	.297	18 .497
-0.375	.297	.303	.303	.321	.355	.415	.305	19 .249
-0.250	.318	.324	.328	.355	.395	.435	.325	20 .249
-0.125	.381		.389		.438		.379	21 .249
.000	.421	.425	.422	.422	.433	.430	.412	22 .249
.250	-256	-252	-254	-251			-246	
.375	-255	-256	-260	-253	-243		-249	
.500	-260	-254	-261	-254	-243		-252	
.750	-245	-243	-253	-251	-243	-244	-235	
1.000	-204	-170	-226	-243	-243	-244	-194	
1.250	-160	-165	-192	-202	-235	-244	-156	
1.500	.124	.125	.156	.174	.228	.241	.123	
1.750	.008	.095	.127	.148	.213	.241	.097	
2.000	.071	.074	.082	.120	.192	.238	.074	
2.250	.057	.056	.080	.096	.171	.233	.057	
2.500	.043	.043	.062	.077	.152	.232	.046	
2.750	.038	.034	.051	.062	.134	.231	.035	
3.000	.036	.038	.046	.051	.117	.227	.030	
3.500	.034	.025	.030	.033	.086	.208		
4.000	.032	.018	.026	.022	.068	.195		
4.500	.026	.017	.023	.014	.053	.173		
5.000	.024	.016	.021	.008	.043	.156		
5.500	.027	.014	.019	.007	.035	.130		
6.000	.021	.013	.019	.005	.030	.112		

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Table 21 Continued
Plate and Spoiler Pressure Coefficients
Configuration 3 M = 2.01 R = 0.30 x 10⁶

x, in.	Plate									Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		Orifice No.	
$\Delta = 30^\circ$											
-6.000	.003	-.001	.014	.001	.027	.296		1	.309		
-5.500	.003	-.001	.016	.003	.260	.270		2	.280		
-5.000	.004	-.005	.011	.001	.315	.221		3	.276		
-4.500	.001	-.002	.015	.208	.307	.193		4	.285		
-4.000	.001	-.001	.134	.266	.292	.177	.009	5	.303		
-3.500	.122	.174	.255	.267	.274	.171	.045	6	.319		
-3.000	.226	.237	.265	.260	.257	.174	.219	7	.349		
-2.750	.240	.252	.258	.254	.249	.174	.240	8	-.232		
-2.500	.243	.250	.253	.249	.241	.175	.253	9	-.233		
-2.250	.252	.250	.251	.244	.234	.174	.258	10	-.236		
-2.000	.240	.246	.249	.242	.233	.173	.261	11	-.231		
-1.750	.249	.250	.249	.239	.227	.181	.266	12	.326		
-1.500	.245	.246	.240	.236	.219	.191	.270	13	.305		
-1.250	.223	.248	.234	.230	.217	.206	.273	14	.296		
-1.000	.242	.244	.231	.221	.219	.225	.274	15	.309		
-0.750	.237	.238	.224	.219	.226	.250	.269	16	.322		
-0.625	.232	.234	.221	.216	.232	.264	.263	17	.350		
-0.500	.233	.204	.220	.221	.244	.287	.259	18	.371		
-0.375	.226	.232	.225	.236	.265	.312	.265	19	-.230		
-0.250	.242	.244	.243	.263	.297	.335	.280	20	-.230		
-0.125	.291		.296		.337		.318	21	-.230		
.000	.338	.344	.339	.351	.348	.338		22	-.230		
$\Delta = 45^\circ$											
-6.000	-.002	-.002	.011	.000	.019	.302		1	.185		
-5.500	-.002	-.002	.009	.001	.031	.294		2	.146		
-5.000	.001	-.004	.008	-.004	.268	.219		3	.125		
-4.500	-.001	-.004	.011	.148	.288	.173		4	.130		
-4.000	.058	.040	.168	.244	.274	.146	.121	5	.161		
-3.500	.193	.201	.238	.244	.241	.122	.172	6	.194		
-3.000	.204	.219	.234	.231	.189	.108	.182	7	.246		
-2.750	.207	.219	.221	.213	.159	.102	.182	8	-.186		
-2.500	.200	.208	.213	.193	.140	.096	.182	9	-.228		
-2.250	.204	.205	.196	.168	.120	.089	.180	10	-.228		
-2.000	.094	.096	.104	.136	.190	.214		11	-.215		
-2.250	.077	.081	.108	.118	.175	.213		12	.193		
-2.500	.066	.071	.091	.103	.162	.213		13	.165		
-2.750	.057	.059	.082	.087	.148	.213		14	.153		
-3.000	.049	.052	.075	.074	.132	.218		15	.166		
-3.500	.041	.036	.053	.055	.106	.195		16	.181		
-4.000	.032	.031	.051	.042	.084	.184		17	.207		
-4.500	.024	.027	.042	.032	.070	.172		18	.213		
-5.000	.013	.020	.037	.026	.057	.153		19	-.200		
-5.500	.013	.013	.035	.022	.049	.136		20	-.200		
-6.000	.006	.004	.030	.018	.041	.117		21	-.205		
$\Delta = 45^\circ$											
-6.000	-.002	-.002	.011	.000	.019	.302		1	.185		
-5.500	-.002	-.002	.009	.001	.031	.294		2	.146		
-5.000	.001	-.004	.008	-.004	.268	.219		3	.125		
-4.500	-.001	-.004	.011	.148	.288	.173		4	.130		
-4.000	.058	.040	.168	.244	.274	.146	.121	5	.161		
-3.500	.193	.201	.238	.244	.241	.122	.172	6	.194		
-3.000	.204	.219	.234	.231	.189	.108	.182	7	.246		
-2.750	.207	.219	.221	.213	.159	.102	.182	8	-.186		
-2.500	.200	.208	.213	.193	.140	.096	.182	9	-.228		
-2.250	.204	.205	.196	.168	.120	.089	.180	10	-.228		
-2.000	.180	.190	.179	.140	.110	.087	.178	11	-.215		
-1.750	.177	.172	.155	.118	.097	.092	.177	12	.193		
-1.500	.147	.144	.121	.098	.089	.101	.177	13	.165		
-1.250	.111	.117	.102	.085	.082	.110	.173	14	.153		
-1.000	.098	.096	.086	.077	.088	.124	.163	15	.166		
-0.750	.077	.078	.072	.071	.098	.151	.146	16	.181		
-0.625	.072	.072	.068	.073	.106	.168	.133	17	.207		
-0.500	.070	.050	.067	.084	.120	.184	.123	18	.213		
-0.375	.070	.076	.080	.099	.147	.213	.126	19	-.200		
-0.250	.097	.103	.104	.140	.192	.228	.142	20	-.200		
-0.125	.170		.181		.228		.190	21	-.205		
.000	.203	.208	.207	.210	.216	.213	.211	22	-.210		
$\Delta = 45^\circ$											
-6.000	-.209	-.203	-.206	-.198	-.189		-.201				
-5.500	-.228	-.231	-.231	-.215	-.195		-.206				
-5.000	-.226	-.239	-.248	-.234	-.205		-.203				
-4.500	-.162	-.198	-.240	-.239	-.202		-.192				
-4.000	.108	.113	.203	.229	.189		-.182				
-3.500	.086	.105	.158	.174	.190		-.170				
-3.000	.087	.095	.121	.139	.198		-.189				
-2.750	.073	.075	.093	.112	.193		-.179				
-2.500	.086	.067	.055	.093	.181		-.174				
-2.250	.091	.063	.060	.081	.169		-.172				
-2.000	.098	.058	.048	.065	.160		-.173				
-1.750	.100	.054	.046	.052	.151		-.180				
-1.500	.093	.055	.046	.044	.144		-.193				
-1.250	.014	.053	.035	.036	.129		-.174				
-1.000	.069						-.175				
-0.750	.017	.047	.037	.030	.105		-.175				
-0.500	.046	.030	.033	.024	.090		-.172				
-0.375	.025	.009	.033	.016	.075		-.169				
-0.250	.008	.044	.036	.010	.063		-.156				
-0.125	.006	.036	.033	.006	.059		-.143				

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Table 21 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 3 M = 2.01 R = 0.30 x 10⁶

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	.001	-.004	.009	-.003	.020	.047			1 .249
-5.500	.000	-.004	.009	-.003	.018	.226			2 .245
-5.000	.000	-.004	.007	-.004	.022	.233			3 .251
-4.500	.000	-.007	.007	.004	.160	.206			4 .256
-4.000	.002	-.002	.008	.057	.211	.132			5 .274
-3.500	.093	.063	.115	.171	.215	.095			6 .288
-3.000	.155	.155	.180	.189	.204	.101			7 .293
-2.750	.167	.173	.182	.184	.183	.112			8 .195
-2.500	.169	.178	.182	.186	.154	.128			9 .202
-2.250	.180	.178	.180	.179	.119	.152			10 .217
-2.000	.167	.177	.183	.163	.104	.179			11 .248
-1.750	.171	.173	.169	.130	.098	.214			12 .036
-1.500	.158	.155	.131	.094	.107	.240			13 .036
-1.250	.108	.118	.090	.080	.127	.259			14 .079
-1.000	.083	.085	.078	.093	.166	.289			15 .071
-0.750	.079	.086	.094	.134	.216	.276			16 .079
-0.625	.098	.103	.117	.168	.236	.274			17 .101
-0.500	.127	.125	.158	.198	.253	.272			18 .113
-0.375	.168	.182	.199	.225	.261	.271			19 .131
-0.250	.213	.219	.222	.253	.274	.268			20 .121
-0.125	.244		.245		.268				21 .137
.000	.252	.253	.248	.254	.262	.260			22 .137
$\Delta = 75^\circ$									
.250	-.193	-.183	-.186	-.177					-.141
.375	-.202	-.200	-.197	-.177	-.162				-.143
.500	-.206	-.197	-.204	-.185	-.156				-.140
.750	-.223	-.212	-.197	-.175	-.159	-.144			-.121
1.000	-.241	-.176	-.189	-.159	-.142	-.127			-.123
1.250	-.268	-.245	-.195	-.128	-.128	-.130			-.134
1.500	-.262	-.261	-.212	-.115	-.133	-.132			-.202
1.750	-.078	-.257	-.242	-.107	-.139	-.131			-.176
2.000	-.160	-.233	-.215	-.110	-.145	-.133			-.144
2.250	-.046	-.174	-.252	-.093	-.142	-.141			-.167
2.500	.070	-.023	-.236	-.085	-.147	-.143			-.177
2.750	.056	.062	-.175	-.072	-.155	-.130			-.125
3.000	.035	.058	-.095	-.052	-.161	-.123			-.002
3.500	.005	.036	.031	-.062	-.155	-.108			
4.000	.000	.027	.021	-.015	-.135	-.146			
4.500	-.004	.017	.010	-.064	-.118	-.135			
5.000	-.005	.013	.005	.102	-.115	-.111			
5.500	-.010	.008	.001	.082	-.112	-.095			
6.000	-.009	.007	.001	.062	-.112	-.108			

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Table 22
Plate and Spoiler Pressure Coefficients
Configuration 4 $M = 2.01$ $R = 0.30 \times 10^6$

x, in.	Plate								Spoiler	
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9	Orifice No.		
$\Delta = 00^\circ$										
-6.000	.005	.003	.017	-.003	.017	.296		1	.358	
-5.500	.005	.003	.014	-.004	.017	.317		2	.384	
-5.000	.005	.003	.013	-.004	.019	.331		3	.423	
-4.500	.004	.002	.016	-.001	.078	.340		4	.473	
-4.000	.002	.003	.015	-.003	.266	.347	.008	5	.532	
-3.500	.003	.001	.016	-.000	.313	.347	.008	6	.569	
-3.000	.000	.000	.014	.234	.334	.347	.008	7	.498	
-2.750	.001	.020	.078	.274	.340	.346	.008	8	-.254	
-2.500	.009	.056	.235	.294	.343	.346	.008	9	-.255	
-2.250	.205	.232	.284	.309	.345	.344	.109	10	-.256	
-2.000	.267	.283	.310	.319	.349	.345	.251	11	-.260	
-1.750	.305	.309	.324	.329	.349	.343	.296	12	.357	
-1.500	.323	.324	.326	.331	.350	.345	.316	13	.380	
-1.250	.313	.335	.334	.336	.350	.346	.329	14	.421	
-1.000	.337	.340	.333	.334	.347	.346	.337	15	.485	
-0.750	.340	.345	.332	.332	.347	.349	.343	16	.544	
-0.625	.340	.340	.329	.331	.344	.352	.341	17	.591	
-0.500	.340	.307	.329	.332	.347	.355	.337	18	.513	
-0.375	.333	.338	.329	.332	.350	.359	.333	19	-.255	
-0.250	.338	.338	.329	.340	.357	.368	.331	20	-.255	
-0.125	.347		.341		.371		.343	21	-.255	
.000	.381	.381	.369	.372	.387	.382		22	-.260	
$\Delta = 15^\circ$										
-6.000	.004	.005	.016	.000	.009	.264		1	.323	
-5.500	.004	.004	.015	.001	.010	.306		2	.343	
-5.000	.005	.004	.016	-.001	.010	.320		3	.380	
-4.500	.004	.003	.016	.003	.019	.328		4	.426	
-4.000	.004	.004	.015	.001	.231	.331	.000	5	.481	
-3.500	.005	.003	.016	.000	.296	.330	.000	6	.515	
-3.000	.001	.002	.015	.218	.315	.328	.001	7	.443	
-2.750	.003	.023	.070	.266	.318	.327	.001	8	-.257	
-2.500	.033	.072	.227	.289	.321	.325	.051	9	-.258	
-2.250	.223	.232	.277	.301	.325	.323	.220	10	-.258	
-2.000	.267	.277	.298	.310	.326	.317	.267	11	-.261	
-1.750	.298	.299	.311	.319	.325	.318	.287	12	.321	
-1.500	.307	.309	.315	.320	.326	.315	.298	13	.337	
-1.250	.292	.316	.320	.322	.323	.313	.306	14	.368	
-1.000	.318	.322	.315	.320	.319	.315	.311	15	.409	
-0.750	.321	.322	.314	.315	.315	.315	.313	16	.453	
-0.625	.319	.319	.311	.311	.313	.321	.313	17	.477	
-0.500	.316	.286	.307	.313	.313	.325	.308	18	.401	
-0.375	.310	.314	.307	.311	.317	.328	.306	19	-.248	
-0.250	.312	.314	.307	.319	.324	.338	.309	20	-.250	
-0.125	.323		.319		.337		.315	21	-.252	
.000	.360	.363	.353	.355	.362	.359	.343	22	-.255	
$\Delta = 15^\circ$										
-6.000	.004	.005	.016	.000	.009	.264		1	.323	
-5.500	.004	.004	.015	.001	.010	.306		2	.343	
-5.000	.005	.004	.016	-.001	.010	.320		3	.380	
-4.500	.004	.003	.016	.003	.019	.328		4	.426	
-4.000	.004	.004	.015	.001	.231	.331	.000	5	.481	
-3.500	.005	.003	.016	.000	.296	.330	.000	6	.515	
-3.000	.001	.002	.015	.218	.315	.328	.001	7	.443	
-2.750	.003	.023	.070	.266	.318	.327	.001	8	-.257	
-2.500	.033	.072	.227	.289	.321	.325	.051	9	-.258	
-2.250	.223	.232	.277	.301	.325	.323	.220	10	-.258	
-2.000	.267	.277	.298	.310	.326	.317	.267	11	-.261	
-1.750	.298	.299	.311	.319	.325	.318	.287	12	.321	
-1.500	.307	.309	.315	.320	.326	.315	.298	13	.337	
-1.250	.292	.316	.320	.322	.323	.313	.306	14	.368	
-1.000	.318	.322	.315	.320	.319	.315	.311	15	.409	
-0.750	.321	.322	.314	.315	.315	.315	.313	16	.453	
-0.625	.319	.319	.311	.311	.313	.321	.313	17	.477	
-0.500	.316	.286	.307	.313	.313	.325	.308	18	.401	
-0.375	.310	.314	.307	.311	.317	.328	.306	19	-.248	
-0.250	.312	.314	.307	.319	.324	.338	.309	20	-.250	
-0.125	.323		.319		.337		.315	21	-.252	
.000	.360	.363	.353	.355	.362	.359	.343	22	-.255	
$\Delta = 15^\circ$										
-6.000	.004	.005	.016	.000	.009	.264		1	.323	
-5.500	.004	.004	.015	.001	.010	.306		2	.343	
-5.000	.005	.004	.016	-.001	.010	.320		3	.380	
-4.500	.004	.003	.016	.003	.019	.328		4	.426	
-4.000	.004	.004	.015	.001	.231	.331	.000	5	.481	
-3.500	.005	.003	.016	.000	.296	.330	.000	6	.515	
-3.000	.001	.002	.015	.218	.315	.328	.001	7	.443	
-2.750	.003	.023	.070	.266	.318	.327	.001	8	-.257	
-2.500	.033	.072	.227	.289	.321	.325	.051	9	-.258	
-2.250	.223	.232	.277	.301	.325	.323	.220	10	-.258	
-2.000	.267	.277	.298	.310	.326	.317	.267	11	-.261	
-1.750	.298	.299	.311	.319	.325	.318	.287	12	.321	
-1.500	.307	.309	.315	.320	.326	.315	.298	13	.337	
-1.250	.292	.316	.320	.322	.323	.313	.306	14	.368	
-1.000	.318	.322	.315	.320	.319	.315	.311	15	.409	
-0.750	.321	.322	.314	.315	.315	.315	.313	16	.453	
-0.625	.319	.319	.311	.311	.313	.321	.313	17	.477	
-0.500	.316	.286	.307	.313	.313	.325	.308	18	.401	
-0.375	.310	.314	.307	.311	.317	.328	.306	19	-.248	
-0.250	.312	.314	.307	.319	.324	.338	.309	20	-.250	
-0.125	.323		.319		.337		.315	21	-.252	
.000	.360	.363	.353	.355	.362	.359	.343	22	-.255	
$\Delta = 15^\circ$										
-6.000	.004	.005	.016	.000	.009	.264		1	.323	
-5.500	.004	.004	.015	.001	.010	.306		2	.343	
-5.000	.005	.004	.016	-.001	.010	.320		3	.380	
-4.500	.004	.003	.016	.003	.019	.328		4	.426	
-4.000	.004	.004	.015	.001	.231	.331	.000	5	.481	
-3.500	.005	.003	.016	.000	.296	.330	.000	6	.515	
-3.000	.001	.002	.015	.218	.315	.328	.001	7	.443	
-2.750	.003	.023	.070	.266	.318	.327	.001	8	-.257	
-2.500	.033	.072	.227	.289	.321	.325	.051	9	-.258	
-2.250	.223	.232	.277	.301	.325	.323	.220	10	-.258	
-2.000	.267	.277	.298	.310	.326	.317	.267	11	-.261	
-1.750	.298	.299	.311	.319	.325	.318	.287	12	.321	
-1.500	.307	.309	.315	.320	.326	.315	.298	13	.337	
-1.250	.292	.316	.320	.322	.323	.313	.306	14	.368	
-1.000	.318	.322	.315	.320	.319	.315	.311	15	.409	
-0.750	.321	.322	.314	.315	.315	.315	.313	16	.453	
-0.625	.319	.319	.311	.311	.313	.321	.313	17	.477	
-0.500	.316	.286	.307	.313	.313	.325	.308	18	.401	
-0.375	.310	.314	.307	.311	.317	.328	.306	19	-.248	
-0.250	.312	.314	.307	.319	.324	.338	.309	20	-.250	
-0.125	.323		.319		.337		.315	21	-.252	
.000	.360	.363	.353	.355	.362	.359	.343	22	-.255	

Table 22 Continued
Plate and Spoiler Pressure Coefficients
Configuration 4 $M = 2.01$ $R = 0.30 \times 10^6$

x , in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 30^\circ$									
-6.000	.004	.004	.015	.000	.015	.015			1 .250
-5.500	.007	.001	.015	.000	.010	.242			2 .265
-5.000	.006	.001	.012	-.003	.010	.313			3 .291
-4.500	.006	.000	.014	-.003	.020	.324			4 .325
-4.000	.006	.002	.013	-.001	.257	.310			5 .363
-3.500	.004	.000	.014	.092	.298	.280	.002		6 .383
-3.000	.003	.006	.127	.254	.294	.257	.003		7 .314
-2.750	.099	.141	.222	.267	.289	.248	.112		8 .251
-2.500	.206	.218	.256	.273	.284	.239	.203		9 .252
-2.250	.253	.251	.267	.271	.276	.236	.236		10 .252
-2.000	.252	.260	.270	.269	.267	.228	.250		11 .254
-1.750	.264	.264	.274	.269	.261	.227	.255		12 .279
-1.500	.262	.263	.264	.260	.252	.225	.262		13 .289
-1.250	.242	.262	.257	.252	.246	.226	.266		14 .311
-1.000	.259	.259	.253	.243	.241	.232	.269		15 .335
-0.750	.253	.252	.244	.239	.238	.235	.270		16 .364
-0.625	.250	.245	.239	.234	.235	.237	.270		17 .373
-0.500	.247	.214	.234	.232	.237	.242	.267		18 .292
-0.375	.240	.238	.234	.234	.240	.249	.267		19 .234
-0.250	.239	.238	.231	.242	.246	.255	.269		20 .234
-0.125	.246		.242		.255		.276		21 .234
0.000	.301		.294		.287		.301		22 .234
$\Delta = 45^\circ$									
-6.000	.002	.001	.014	-.001	.016	.010			1 .175
-5.500	.004	.001	.012	-.003	.016	.010			2 .186
-5.000	.004	.001	.012	-.005	.016	.216			3 .229
-4.500	.005	.000	.015	.001	.016	.275			4 .295
-4.000	.003	.001	.015	-.003	.106	.289	.001		5 .382
-3.500	.003	-.001	.014	.014	.257	.272	.123		6 .463
-3.000	.137	.079	.157	.230	.277	.227	.189		7 .405
-2.750	.203	.210	.222	.251	.280	.207	.196		8 .237
-2.500	.228	.234	.246	.256	.273	.184	.203		9 .242
-2.250	.251	.250	.254	.256	.254	.170	.201		10 .241
-2.000	.236	.252	.258	.260	.228	.157	.197		11 .248
-1.750	.249	.256	.260	.243	.200	.150	.191		12 .131
-1.500	.237	.246	.238	.212	.175	.145	.184		13 .139
-1.250	.190	.221	.202	.178	.159	.142	.171		14 .164
-1.000	.174	.182	.164	.150	.150	.152	.153		15 .197
-0.750	.146	.152	.138	.134	.144	.170	.133		16 .225
-0.625	.138	.139	.129	.130	.145	.184	.125		17 .238
-0.500	.133	.110	.124	.133	.149	.197	.117		18 .181
-0.375	.126	.130	.125	.137	.162	.222	.114		19 .239
-0.250	.134	.139	.134	.160	.192	.249	.120		20 .250
-0.125	.182		.187		.237		.132		21 .251
0.000	.269	.274	.266	.269	.274	.272	.161		22 .251
$\Delta = 45^\circ$									
-6.000	.002	.001	.014	-.001	.016	.010			1 .175
-5.500	.004	.001	.012	-.003	.016	.216			2 .186
-5.000	.004	.001	.012	-.005	.016	.275			3 .229
-4.500	.005	.000	.015	.001	.016	.289			4 .295
-4.000	.003	.001	.015	-.003	.106	.289	.001		5 .382
-3.500	.003	-.001	.014	.014	.257	.272	.123		6 .463
-3.000	.137	.079	.157	.230	.277	.227	.189		7 .405
-2.750	.203	.210	.222	.251	.280	.207	.196		8 .237
-2.500	.228	.234	.246	.256	.273	.184	.203		9 .242
-2.250	.251	.250	.254	.256	.254	.170	.201		10 .241
-2.000	.236	.252	.258	.260	.228	.157	.197		11 .248
-1.750	.249	.256	.260	.243	.200	.150	.191		12 .131
-1.500	.237	.246	.238	.212	.175	.145	.184		13 .139
-1.250	.190	.221	.202	.178	.159	.142	.171		14 .164
-1.000	.174	.182	.164	.150	.150	.152	.153		15 .197
-0.750	.146	.152	.138	.134	.144	.170	.133		16 .225
-0.625	.138	.139	.129	.130	.145	.184	.125		17 .238
-0.500	.133	.110	.124	.133	.149	.197	.117		18 .181
-0.375	.126	.130	.125	.137	.162	.222	.114		19 .239
-0.250	.134	.139	.134	.160	.192	.249	.120		20 .250
-0.125	.182		.187		.237		.132		21 .251
0.000	.269	.274	.266	.269	.274	.272	.161		22 .251

Table 22 Concluded
 Plate and Spoiler Pressure Coefficients
 Configuration 4 $M = 2.01$ $R = 0.30 \times 10^6$

x, in.	Plate								Orifice No.
	Row 0	Row 1	Row 3	Row 4	Row 6	Row 7	Row 9		
$\Delta = 60^\circ$									
-6.000	.007	.003	.015	.000	.022	.016			1 .221
-5.500	.007	.003	.014	.000	.022	.017			2 .274
-5.000	.008	.001	.014	-.003	.022	.092			3 .319
-4.500	.006	.000	.015	.003	.022	.186			4 .332
-4.000	.003	.002	.016	.001	.031	.206	.007		5 .313
-3.500	.003	.000	.015	.003	.152	.216	.075		6 .261
-3.000	.026	.009	.034	.107	.195	.203	.135		7 .142
-2.750	.088	.079	.096	.149	.203	.177	.149		8 .216
-2.500	.138	.127	.149	.168	.205	.156	.160		9 .222
-2.250	.170	.161	.169	.181	.208	.143	.166		10 .225
-2.000	.166	.174	.181	.185	.205	.131	.169		11 .234
-1.750	.187	.182	.185	.190	.194	.120	.151		12 .140
-1.500	.179	.180	.182	.189	.169	.120	.163		13 .159
-1.250	.154	.192	.184	.174	.139	.129	.169		14 .203
-1.000	.175	.180	.170	.137	.126	.142	.159		15 .244
-750	.141	.139	.123	.114	.130	.162	.137		16 .268
-625	.117	.113	.108	.111	.134	.173	.113		17 .242
-500	.112	.097	.105	.115	.144	.188	.094		18 .131
-375	.109	.113	.112	.127	.159	.204	.084		19 .206
-250	.120	.127	.132	.154	.188	.228	.095		20 .221
-125	.176		.180		.223		.124		21 .221
.000	.263	.266	.262	.261	.272	.270	.177		22 .200
$\Delta = 75^\circ$									
-6.000	.005	.004	.014	-.001	.019	.024			1 .053
-5.500	.006	.004	.015	.000	.021	.056			2 .063
-5.000	.007	.002	.014	-.003	.021	.083			3 .070
-4.500	.004	.002	.012	.001	.034	.099			4 .064
-4.000	.009	.005	.015	.004	.061	.106	.038		5 .052
-3.500	.018	.010	.024	.027	.089	.099	.052		6 .029
-3.000	.043	.037	.053	.059	.098	.093	.051		7 .-032
-2.750	.055	.069	.059	.067	.094	.088	.051		8 .-123
-2.500	.061	.061	.070	.068	.094	.086	.052		9 .-134
-2.250	.077	.067	.072	.067	.089	.088	.048		10 .-143
-2.000	.061	.066	.072	.068	.087	.083	.048		11 .-148
-1.750	.079	.067	.073	.068	.087	.079	.048		12 .040
-1.500	.064	.064	.065	.066	.088	.077	.048		13 .038
-1.250	.042	.065	.065	.066	.084	.075	.048		14 .044
-1.000	.065	.069	.063	.065	.084	.069	.048		15 .050
-750	.066	.067	.062	.065	.079	.068	.048		16 .044
-625	.065	.066	.062	.062	.079	.068	.048		17 .029
-500	.069	.041	.061	.059	.076	.062	.048		18 .-011
-375	.062	.063	.061	.058	.072	.064	.048		19 .-160
-250	.061	.061	.056	.059	.069	.066	.048		20 .-172
-125	.056		.048		.066		.048		21 .-171
.000	.093	.095	.089	.088	.118	.114	.048		22 .-117
$\Delta = 75^\circ$									
-6.000	.118	-.111	-.114	-.103					-.157
-5.500	-.128	-.120	-.111	-.098	-.073				-.165
-5.000	-.134	-.118	-.124	-.099	-.063				-.168
-4.500	-.154	-.125	-.119	-.102	-.056	-.045			-.159
-4.000	-.184	-.131	-.132	-.102	-.066	-.032	-.175		
-3.500	-.195	-.200	-.177	-.081	-.058	-.004	-.110		
-3.000	-.159	-.192	-.235	-.087	-.051	-.021	-.082		
-2.750	-.025	-.099	-.203	-.117	-.051	-.040	-.073		
-2.500	-.004	-.023	-.102	-.140	-.058	-.051	-.055		
-2.250	.009	.010	.056	.154	.074	.055	.025		
-2.000	.008	.017	.014	-.096	-.053	.055	.050		
-2.750	.007	.015	.008	-.041	-.032	.009	.037		
-3.000	.006	.014	.006	.006	-.028	-.108	.022		
-3.500	.002	.012	.004	.037	-.070	-.170			
-4.000	-.003	.010	.006	.036	-.058	-.126			
-4.500	-.002	.007	.006	.032	-.013	-.091			
-5.000	.000	.007	.005	.028	-.049	-.086			
-5.500	-.005	.008	.006	.028	-.038	-.092			
-6.000	-.005	.007	-.005	.027	-.019	-.086			

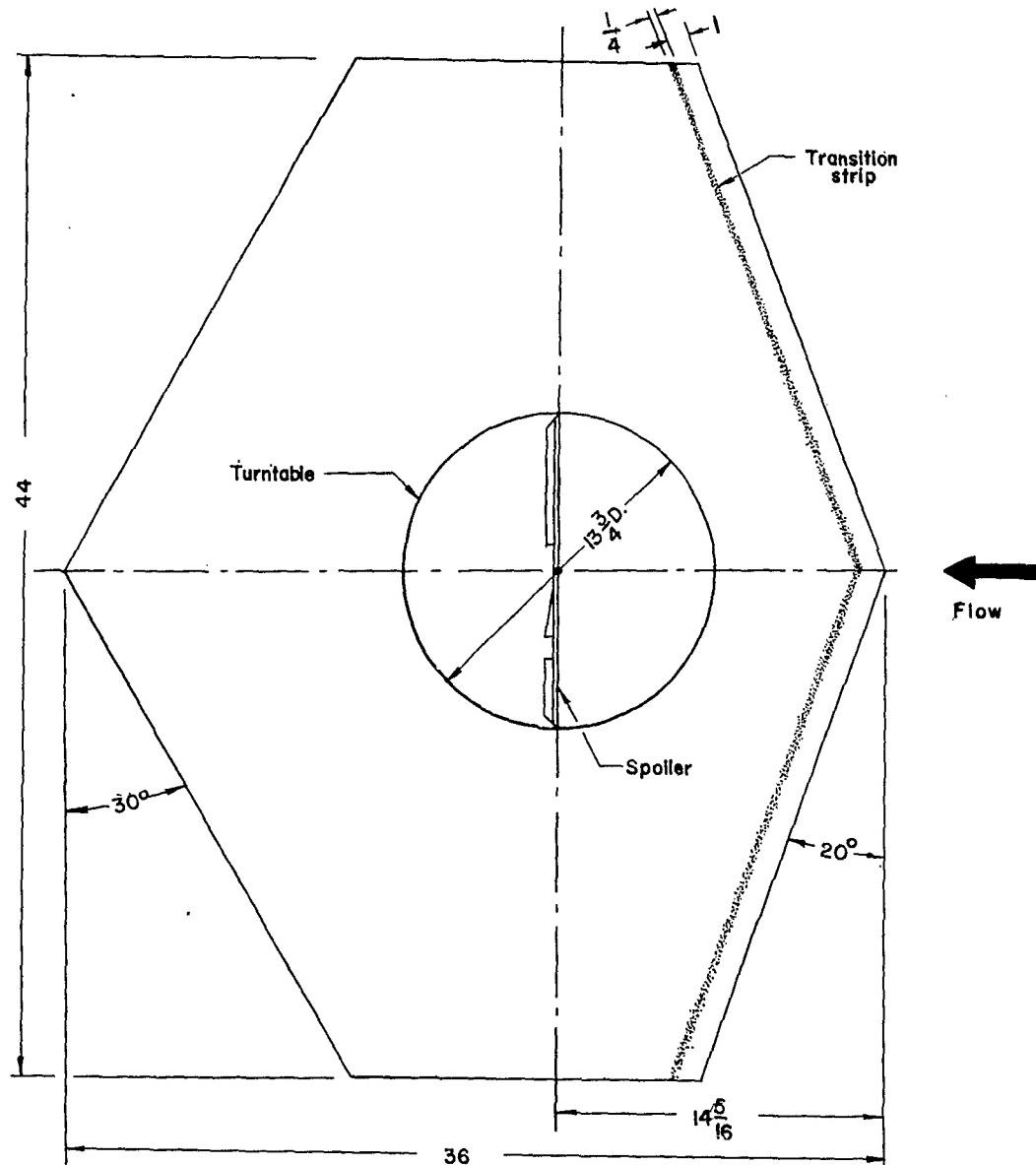
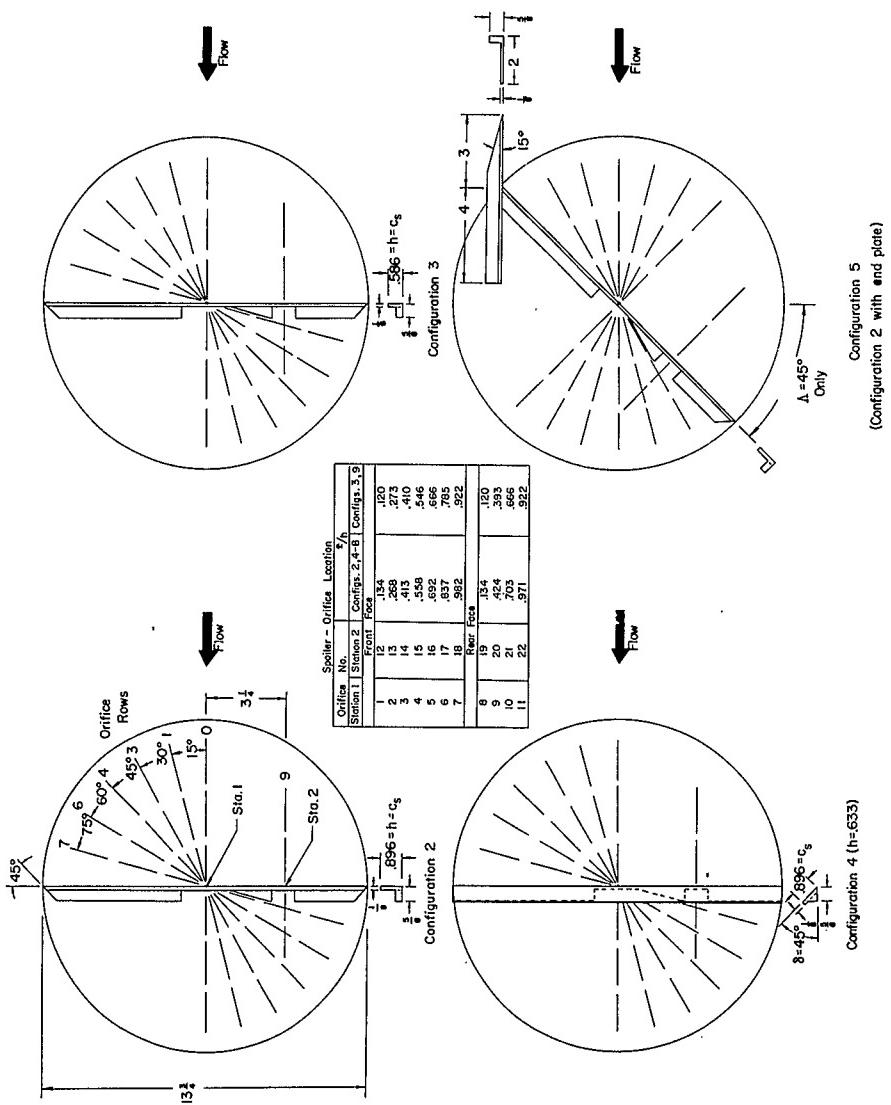
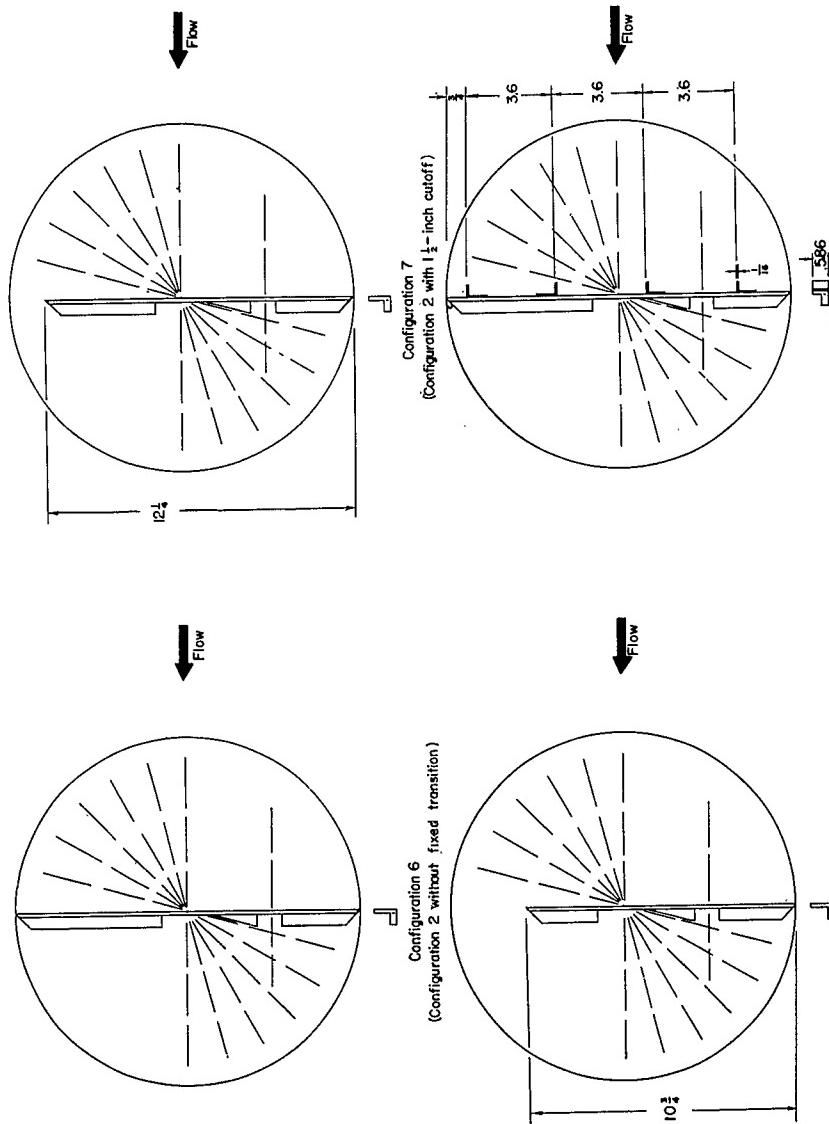


Figure 1.- Sketch of test setup on boundary-layer bypass plate. All dimensions in inches.



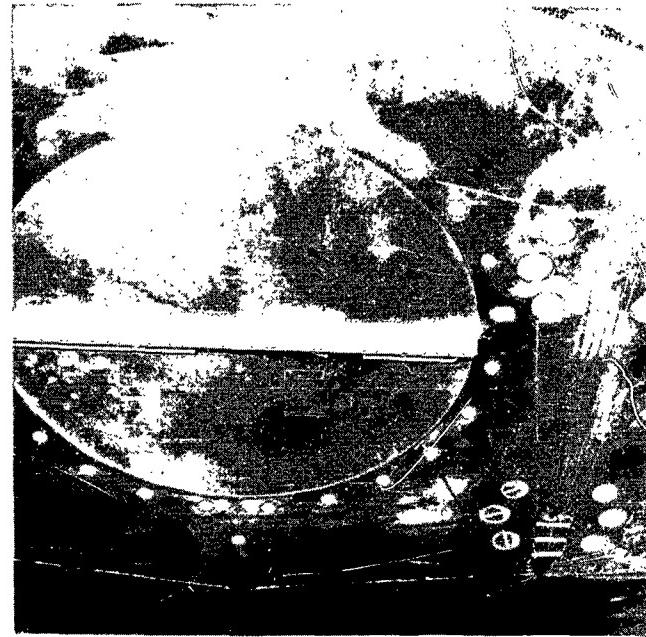
(a) Basic configurations.

Figure 2.- Sketches of spoiler configurations mounted on turntable.
Dashed lines indicate rows of orifices. All dimensions in inches.

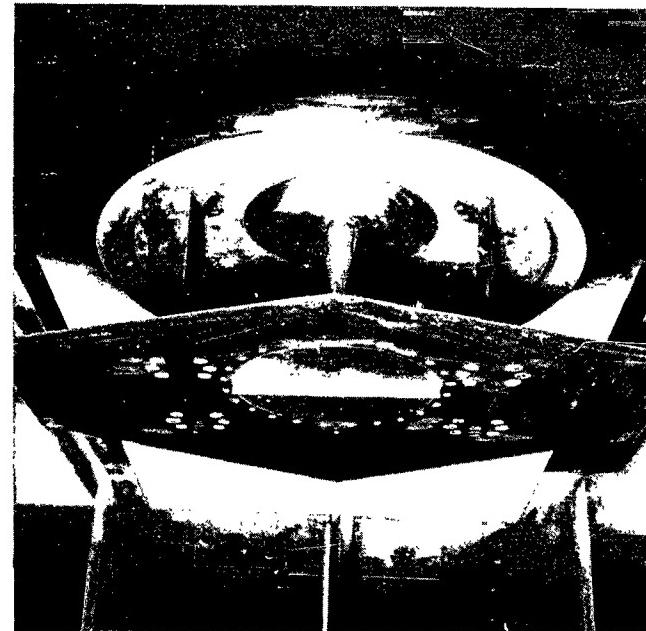


(b) Modified configurations.

Figure 2.- Concluded.



L-86607
Figure 3.- Distant and closeup photographs of configuration 3 mounted on
boundary-layer bypass plate.



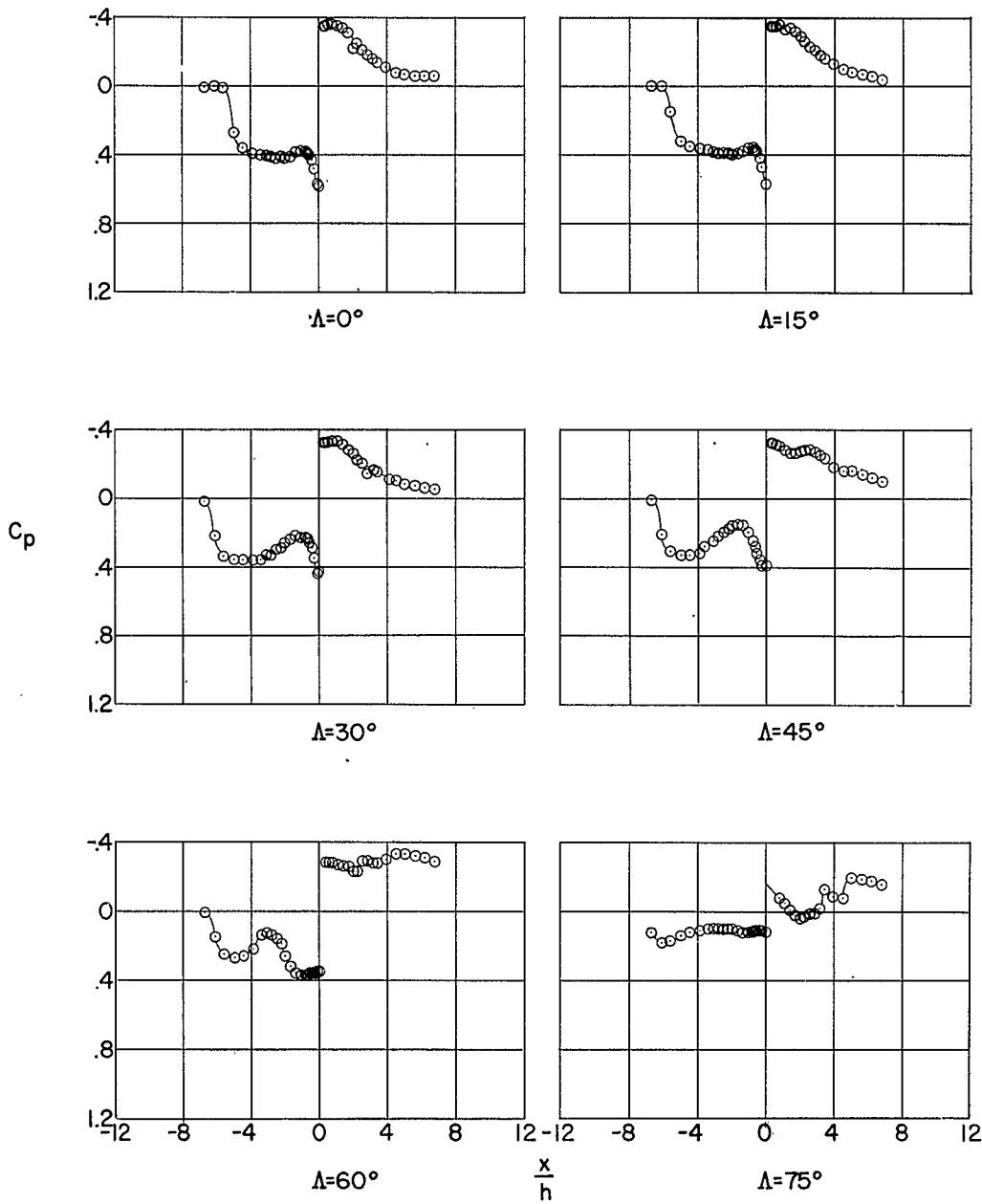
(a) Configuration 2, $M = 1.61$.

Figure 4.- Basic streamwise pressure distributions along plate.
 $R = 0.30 \times 10^6$.

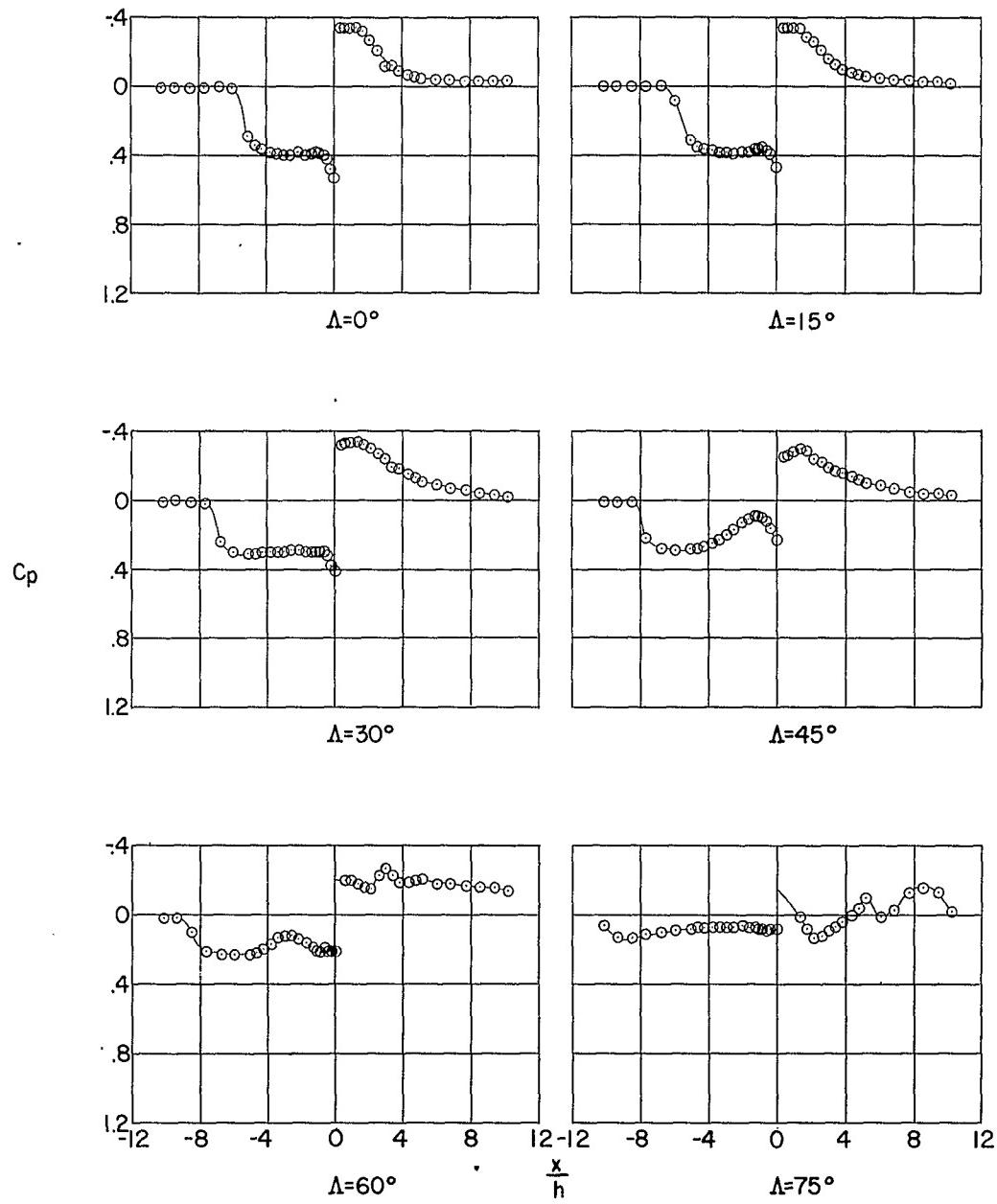
(b) Configuration 3, $M = 1.61$.

Figure 4.- Continued.

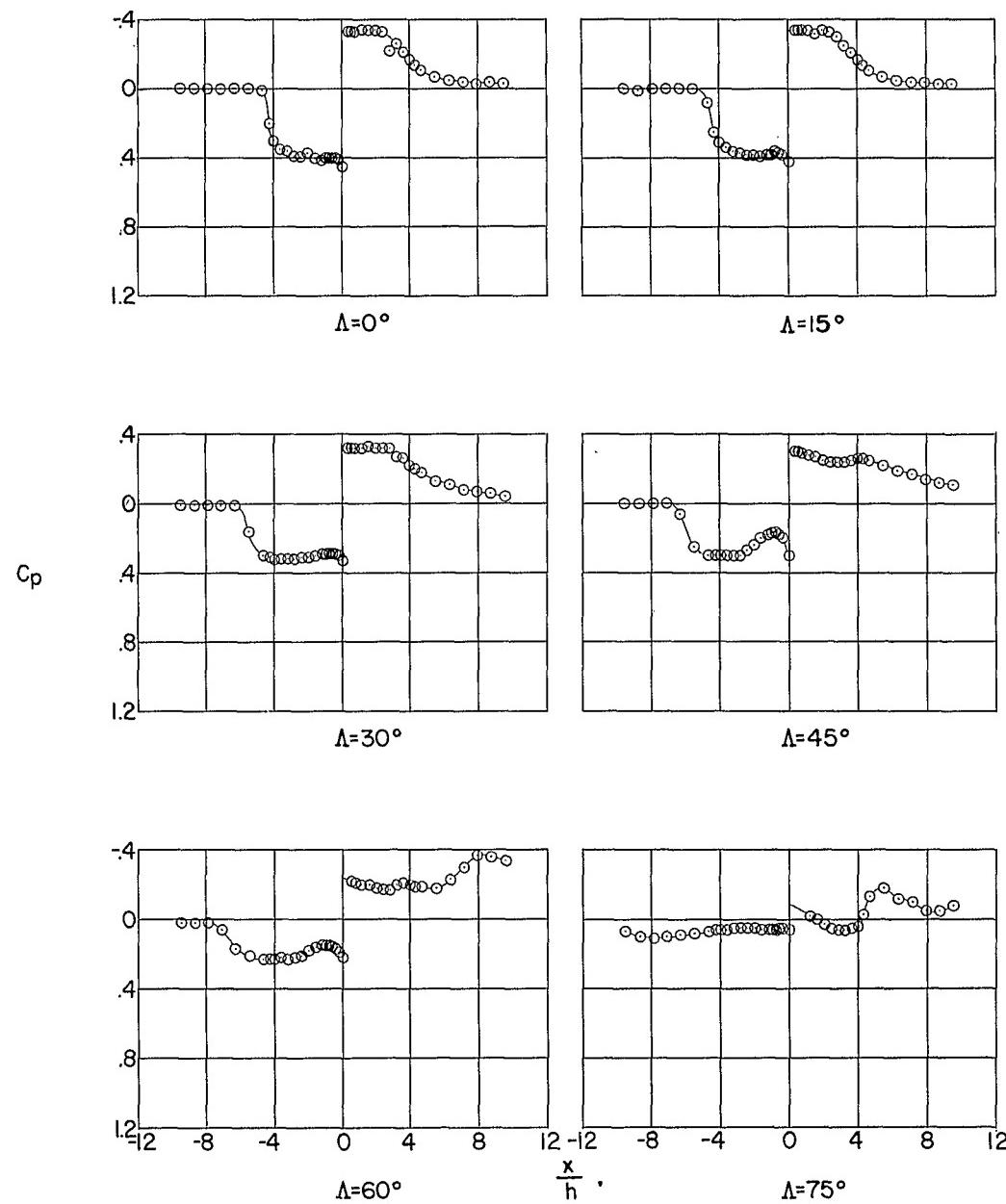
(c) Configuration 4, $M = 1.61$.

Figure 4.- Continued.

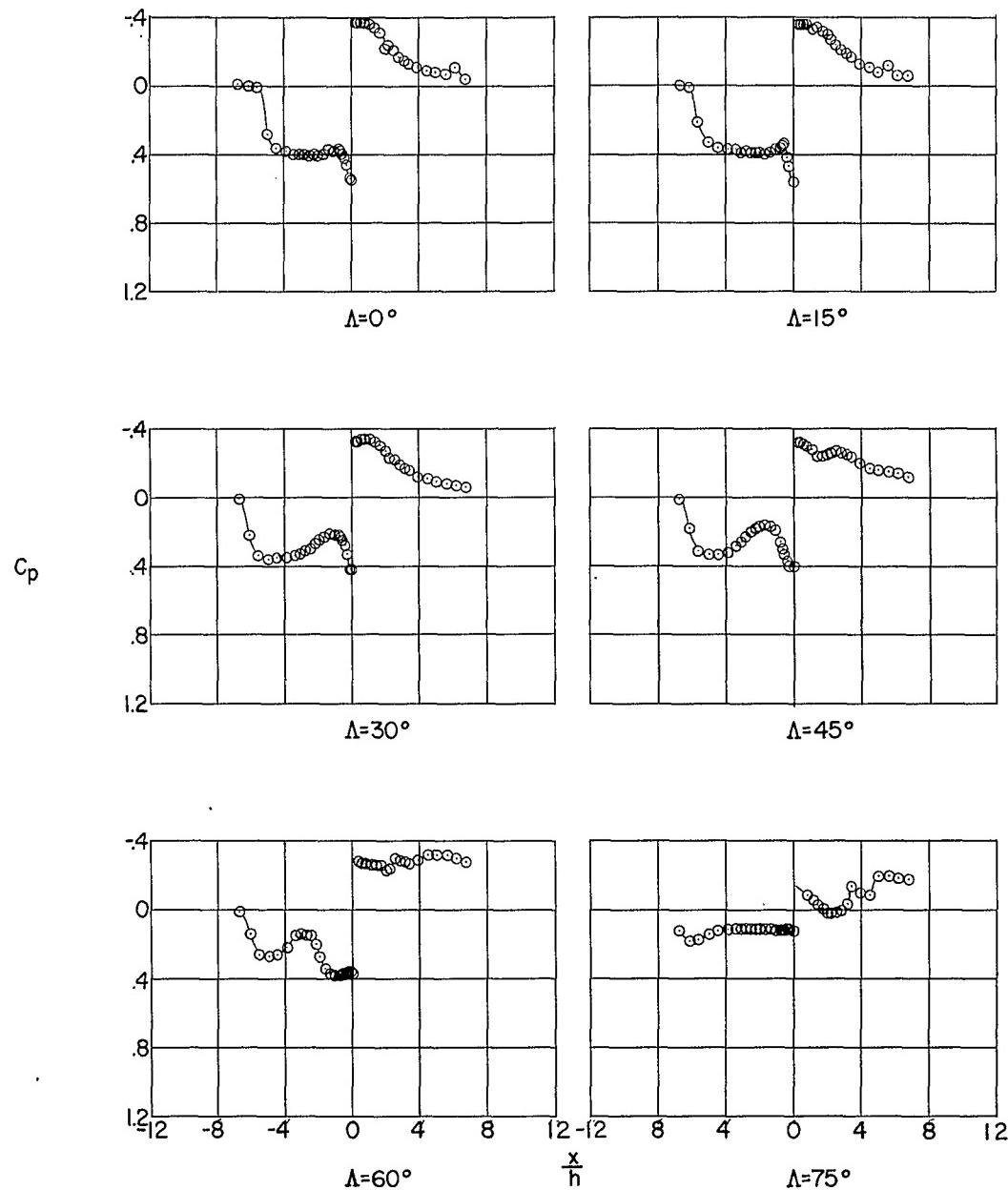
(d) Configuration 6, $M = 1.61$.

Figure 4.- Continued.

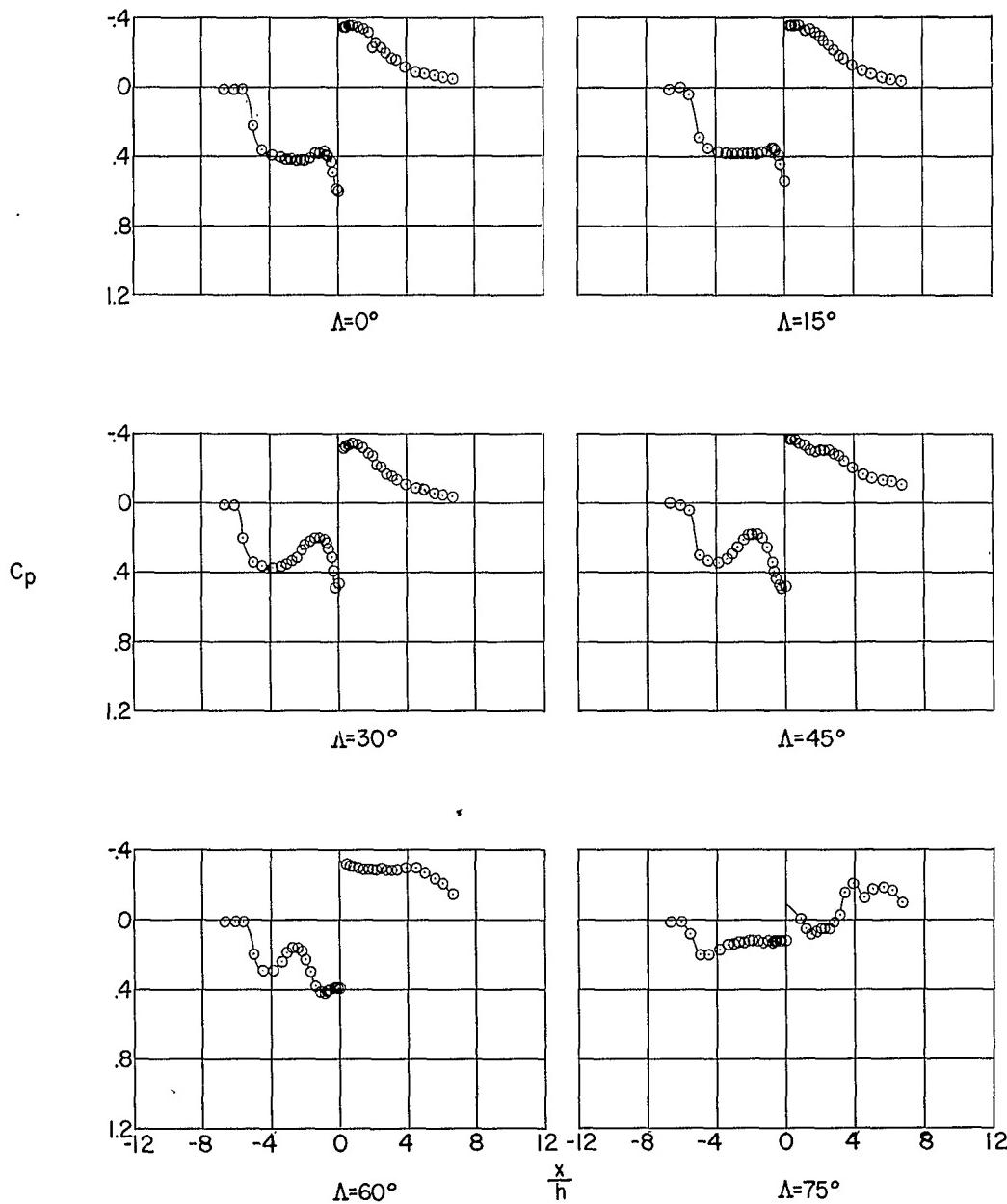
(e) Configuration 7, $M = 1.61$.

Figure 4.- Continued.

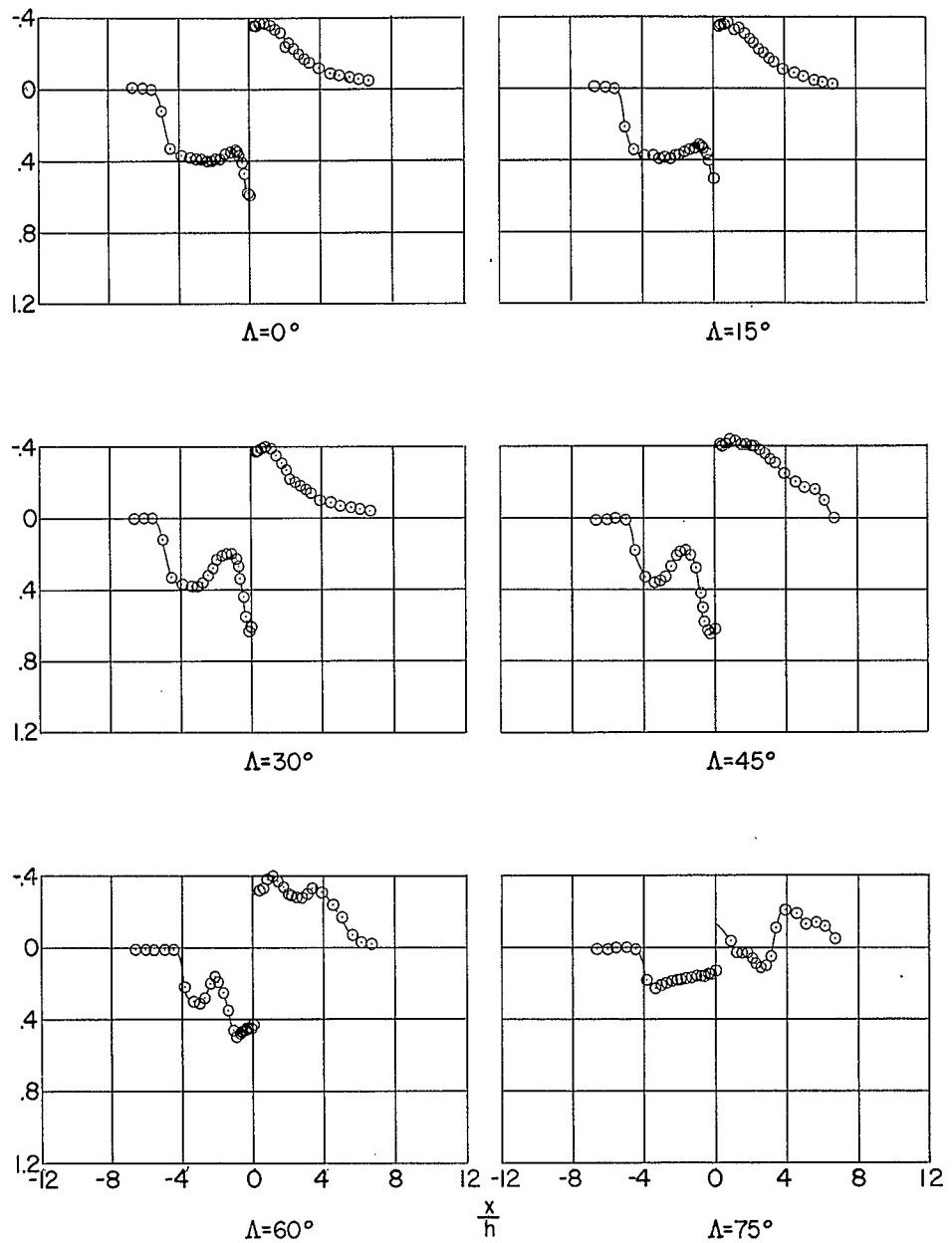
(f) Configuration 8, $M = 1.61$.

Figure 4.- Continued.

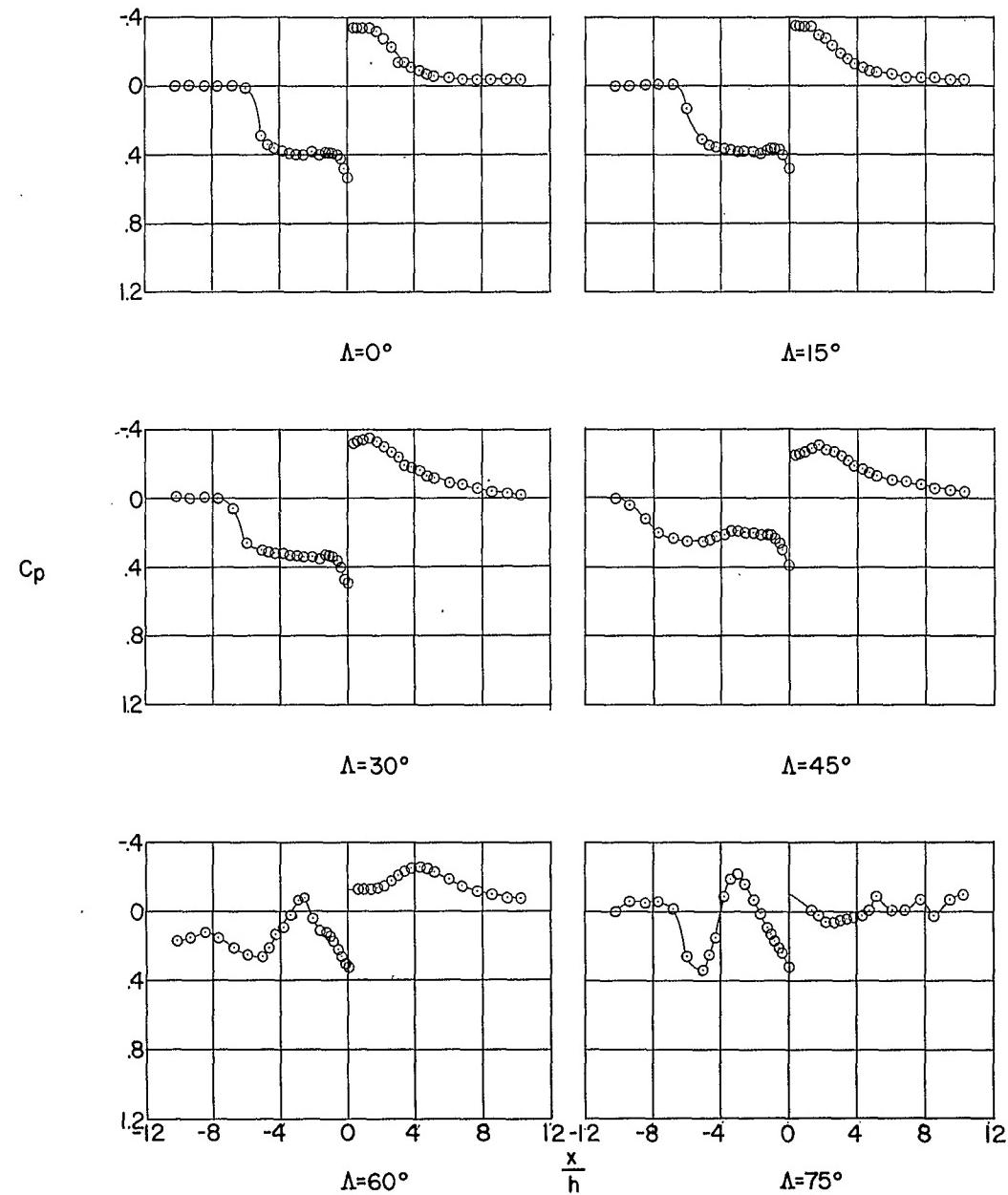
(g) Configuration 9, $M = 1.61$.

Figure 4.- Continued.

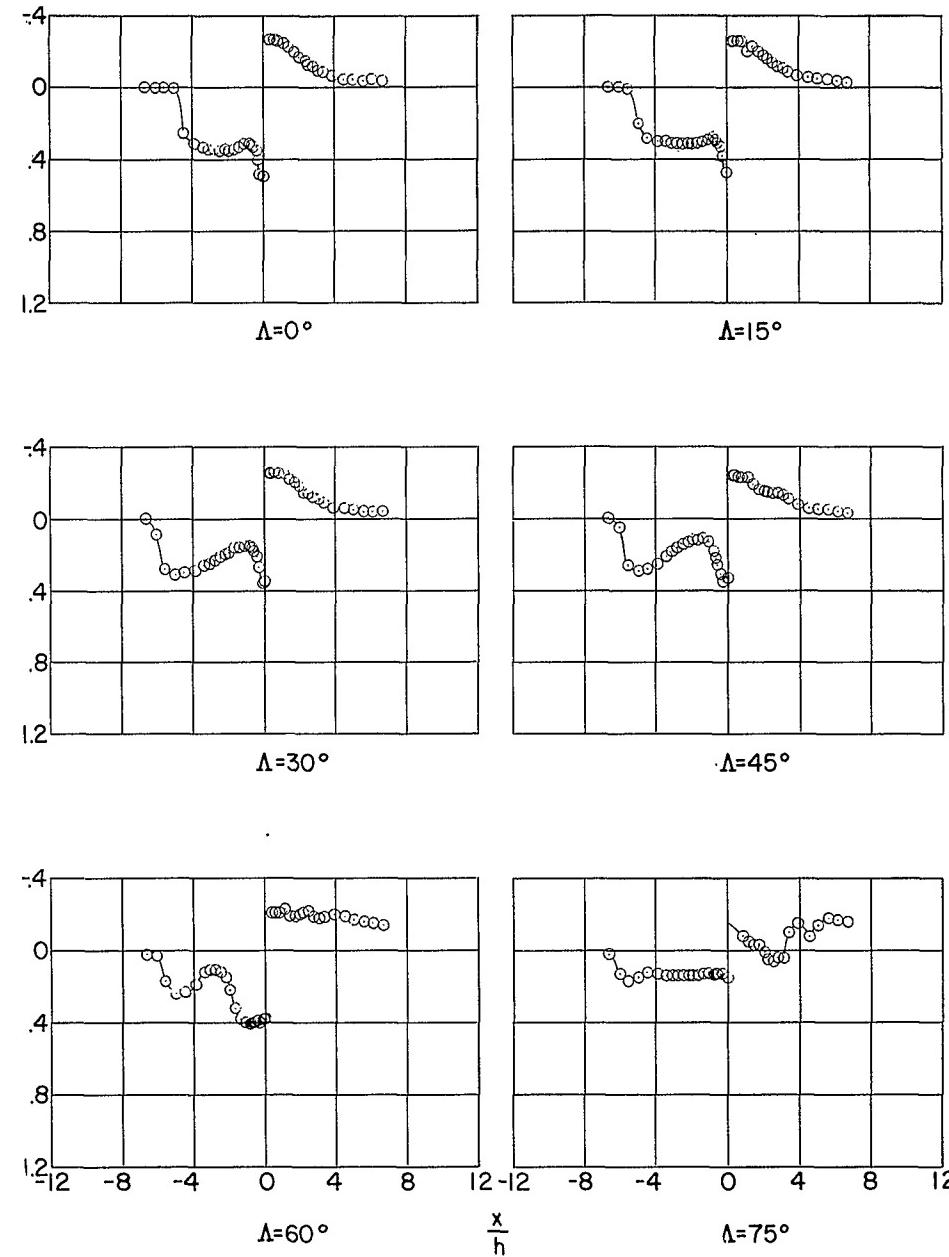
(h) Configuration 2, $M = 2.01$.

Figure 4.- Continued.

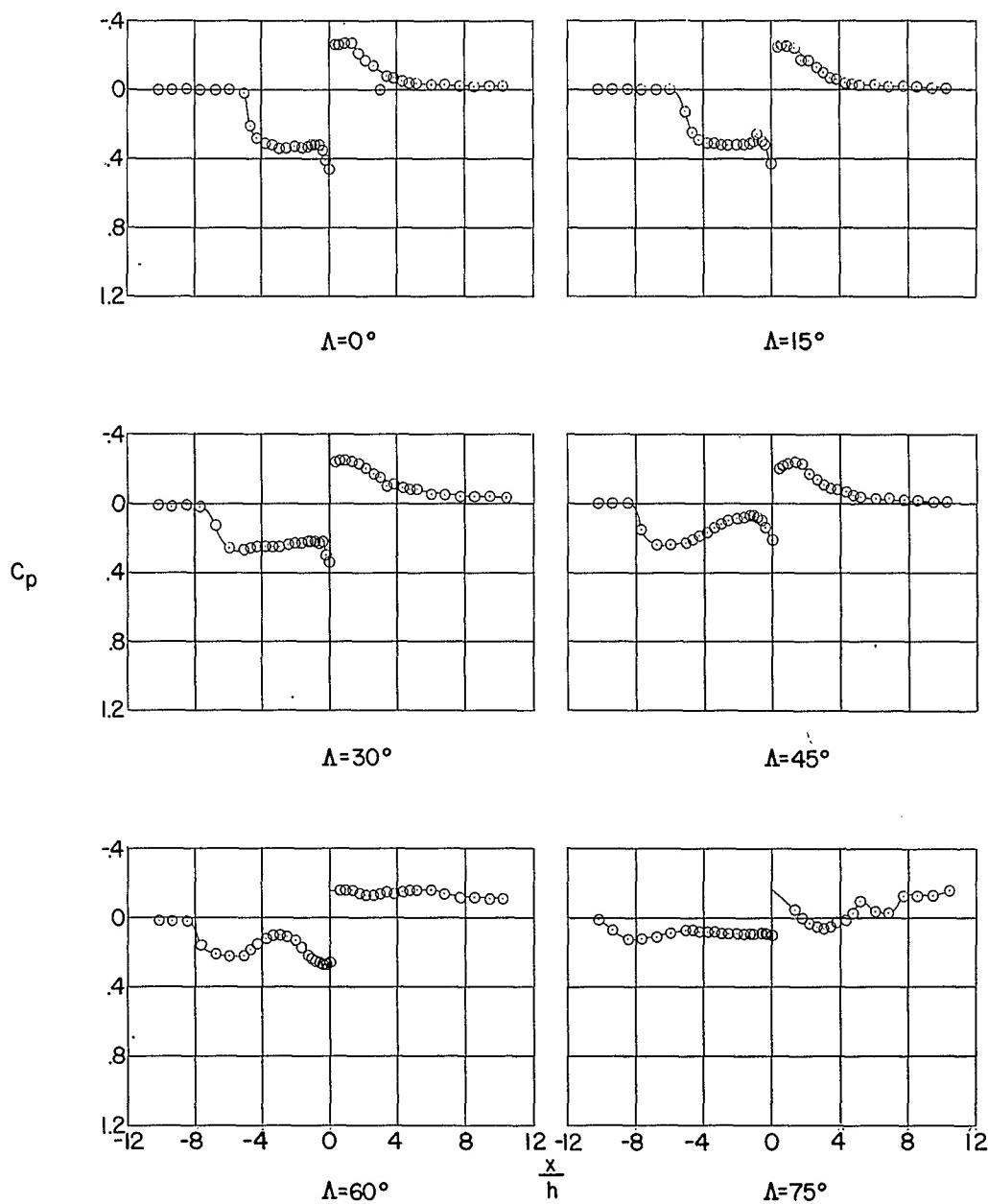
(i) Configuration 3, $M = 2.01$.

Figure 4.- Continued.

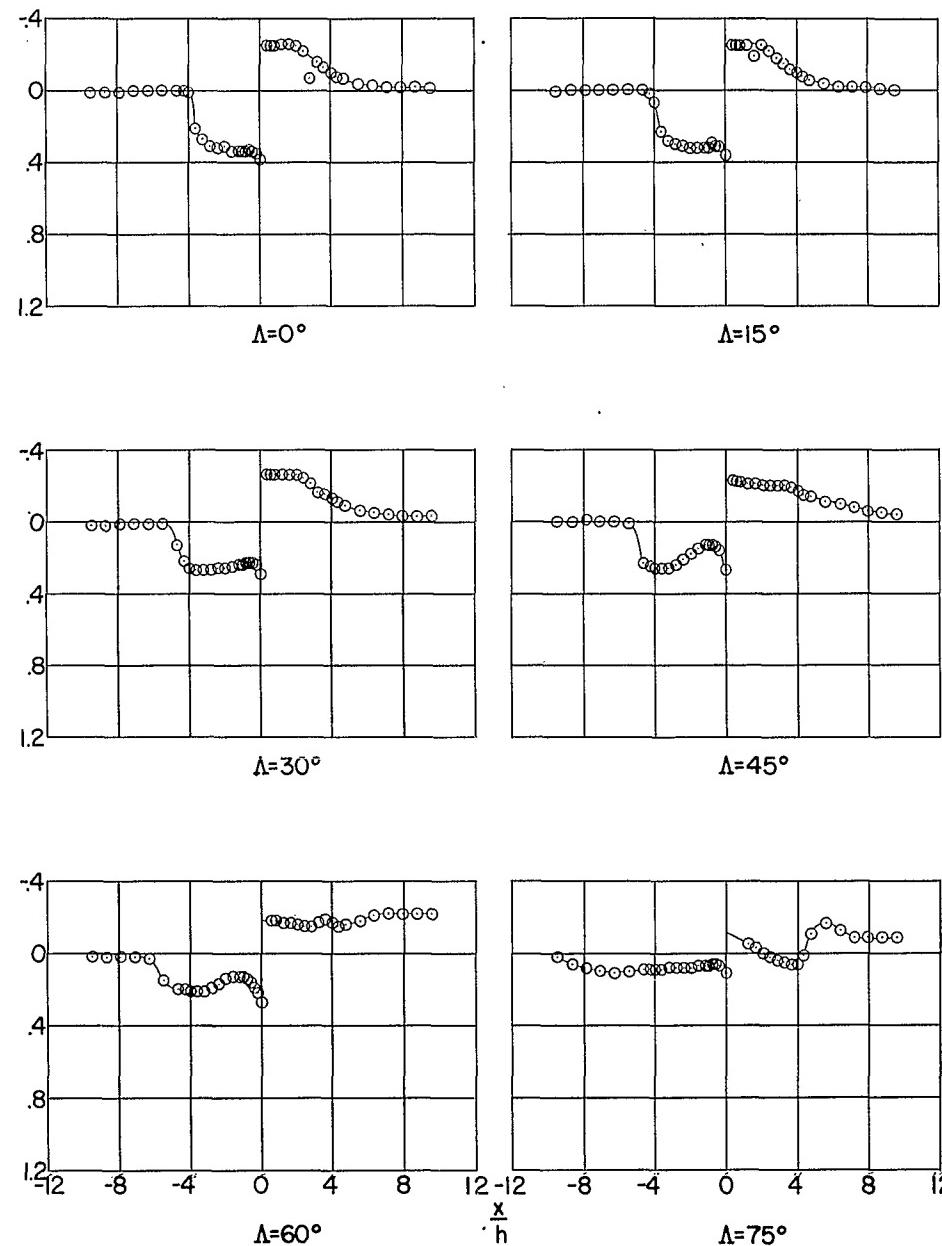
(j) Configuration 4, $M = 2.01$.

Figure 4.- Concluded.

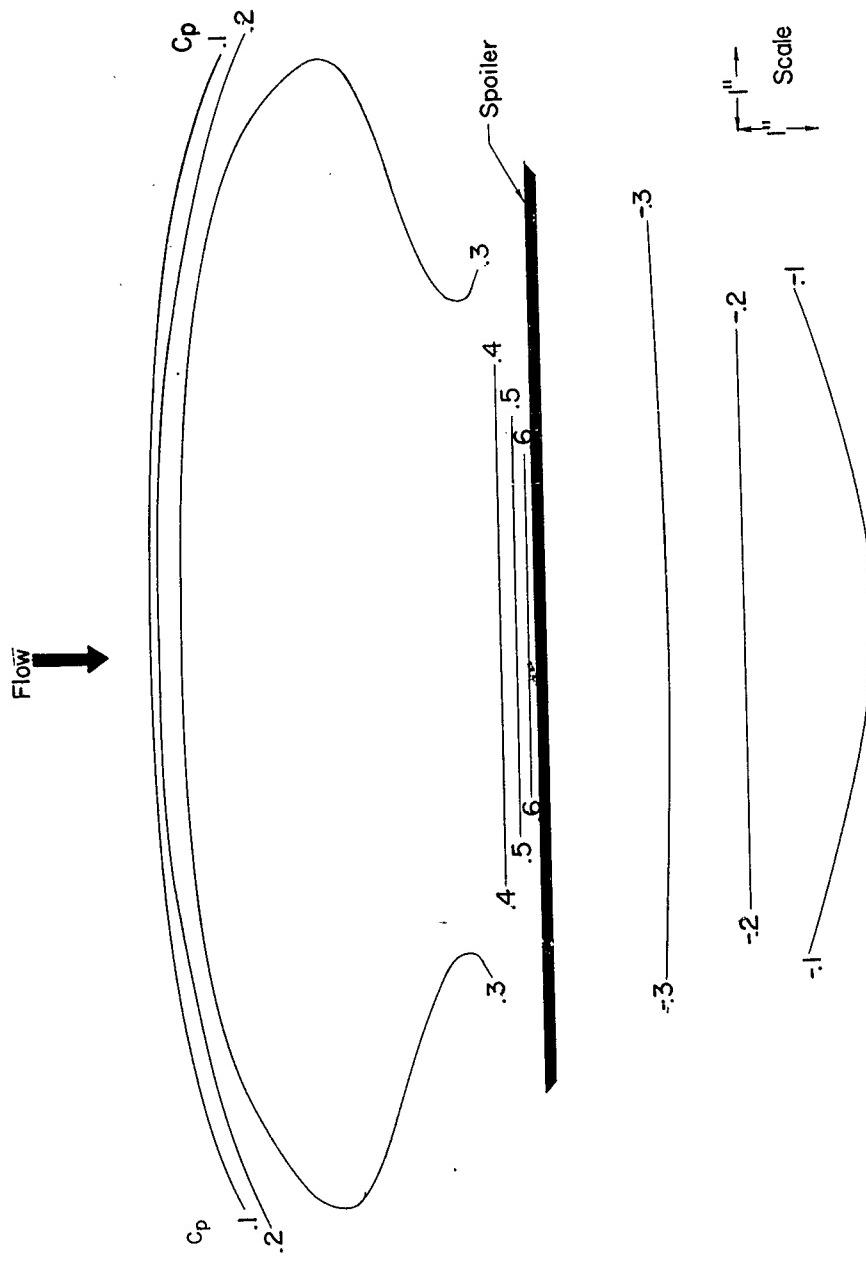
(a) $\alpha = 0^\circ$.

Figure 5.- Contour plots showing lines of constant pressure coefficient in flow field of configuration 8. $M = 1.61$; $R = 0.30 \times 10^6$.

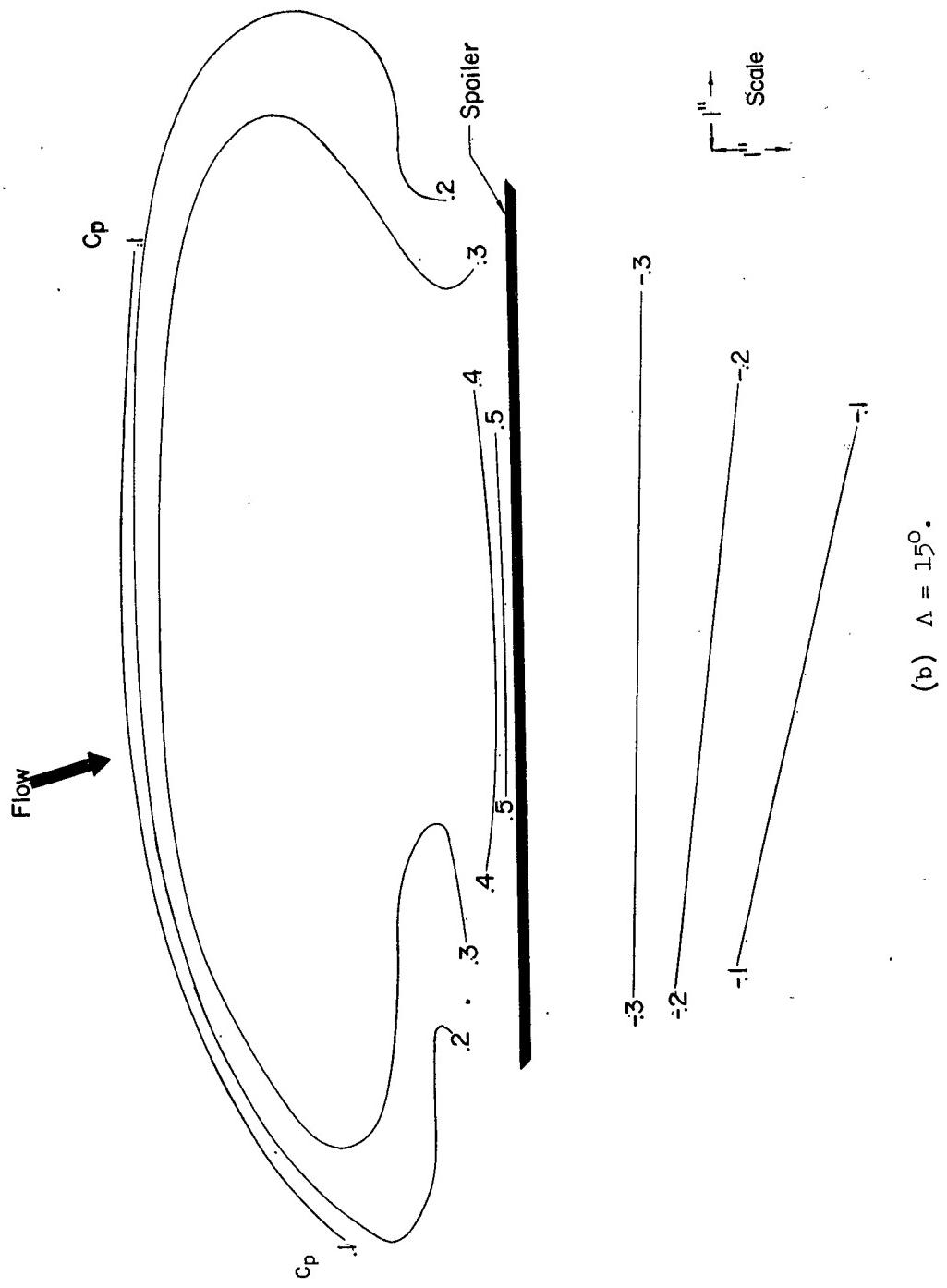
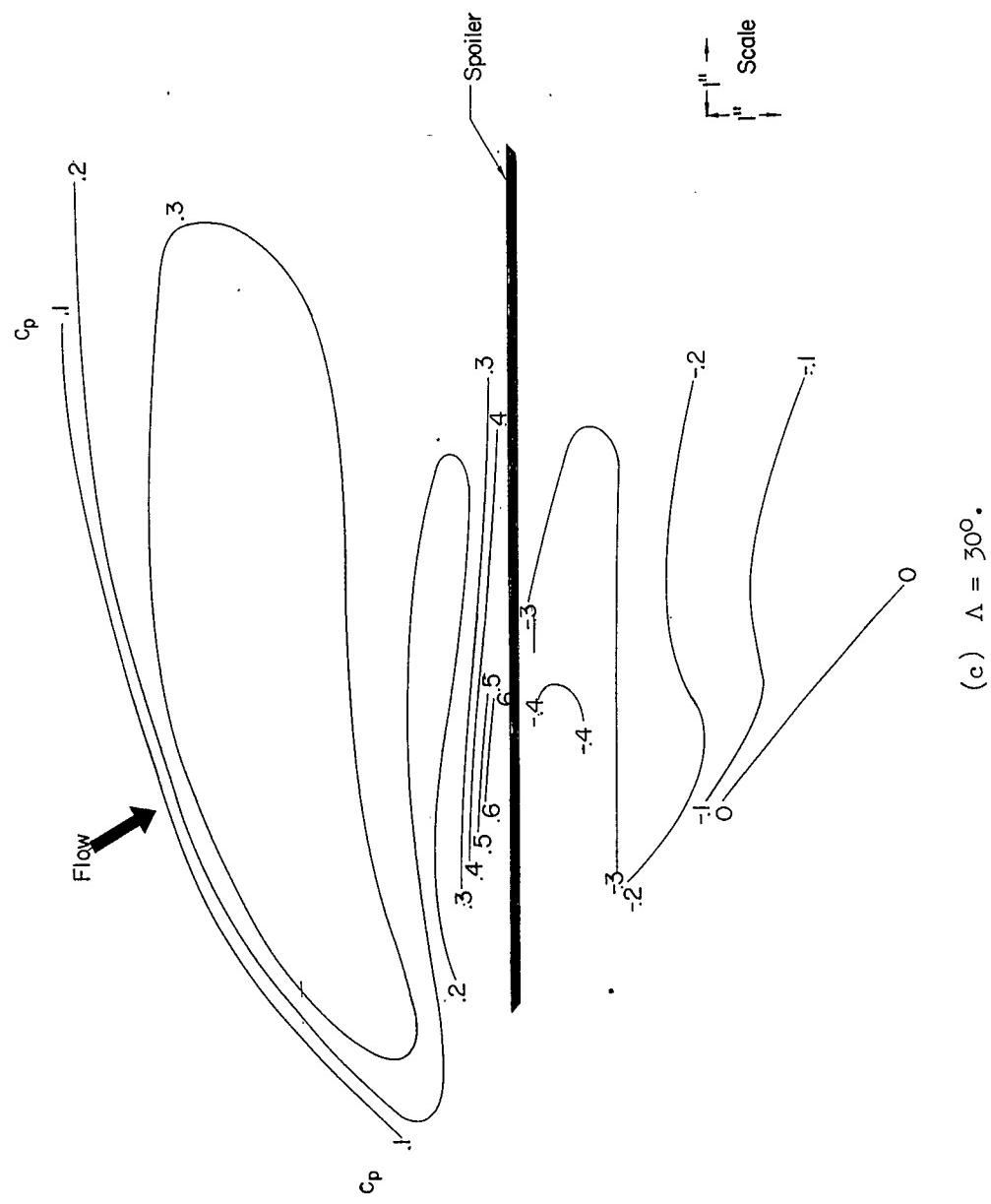


Figure 5.- Continued.



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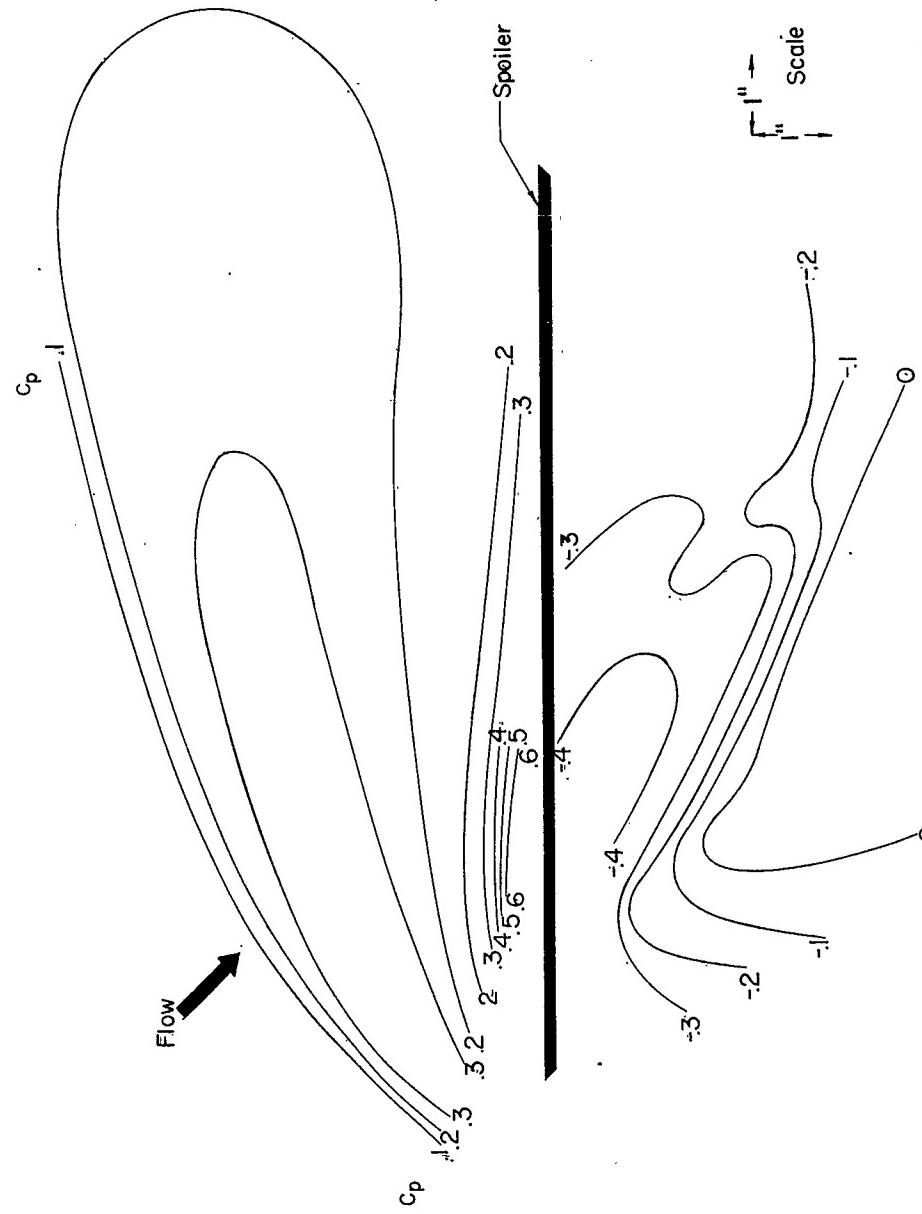


Figure 5.- Continued.

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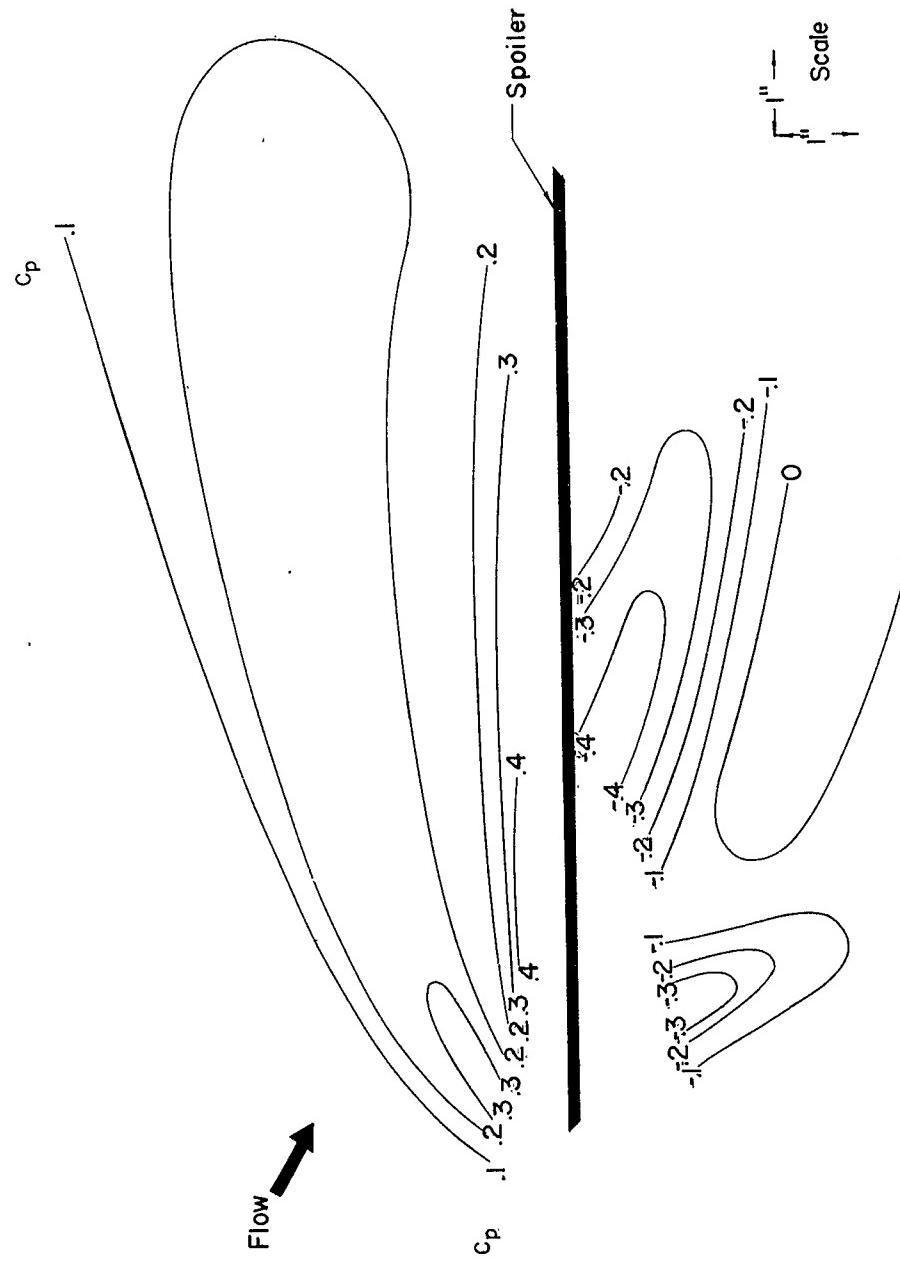
(e) $\Lambda = 60^\circ$.

Figure 5.- Continued.

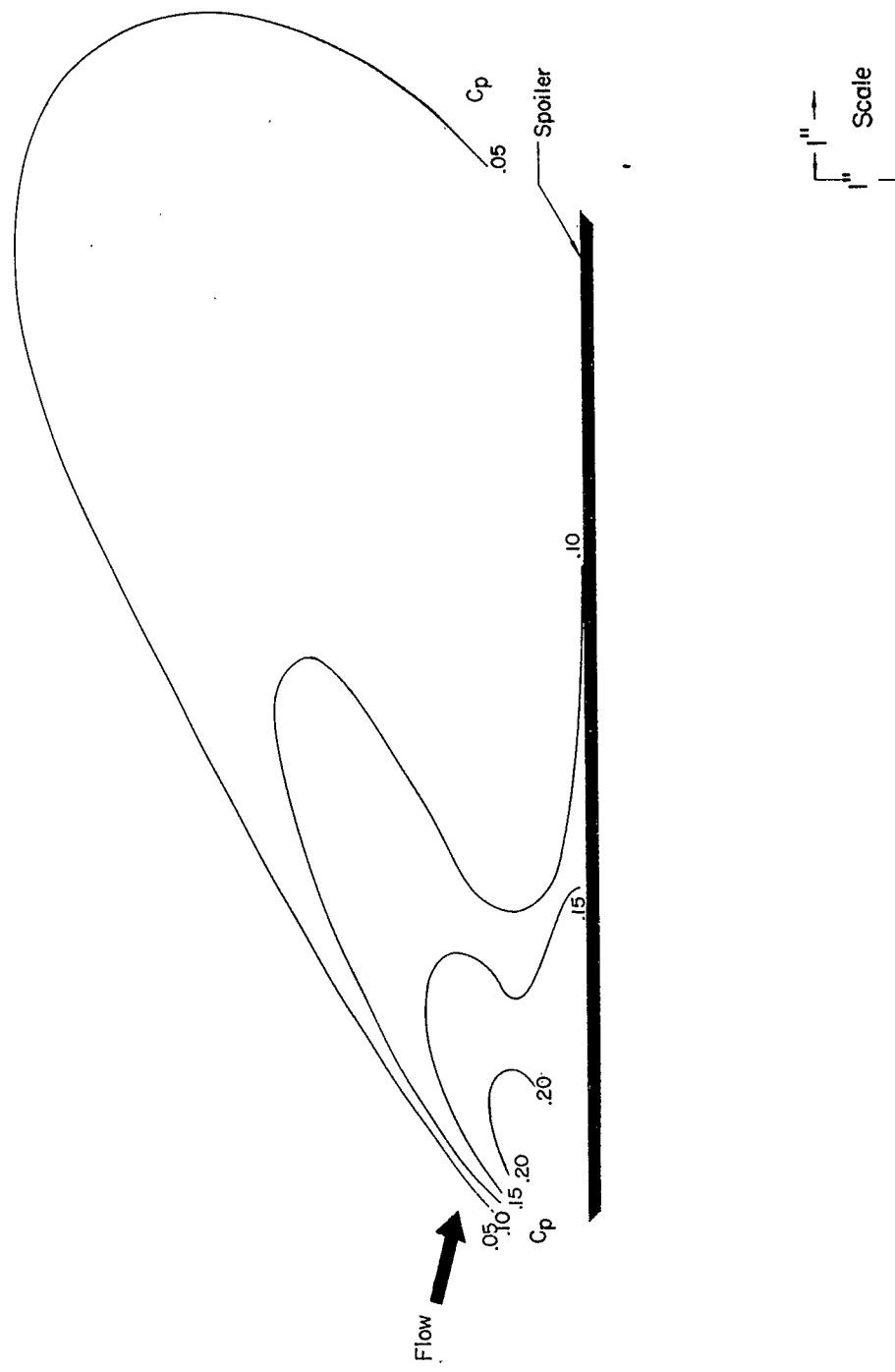
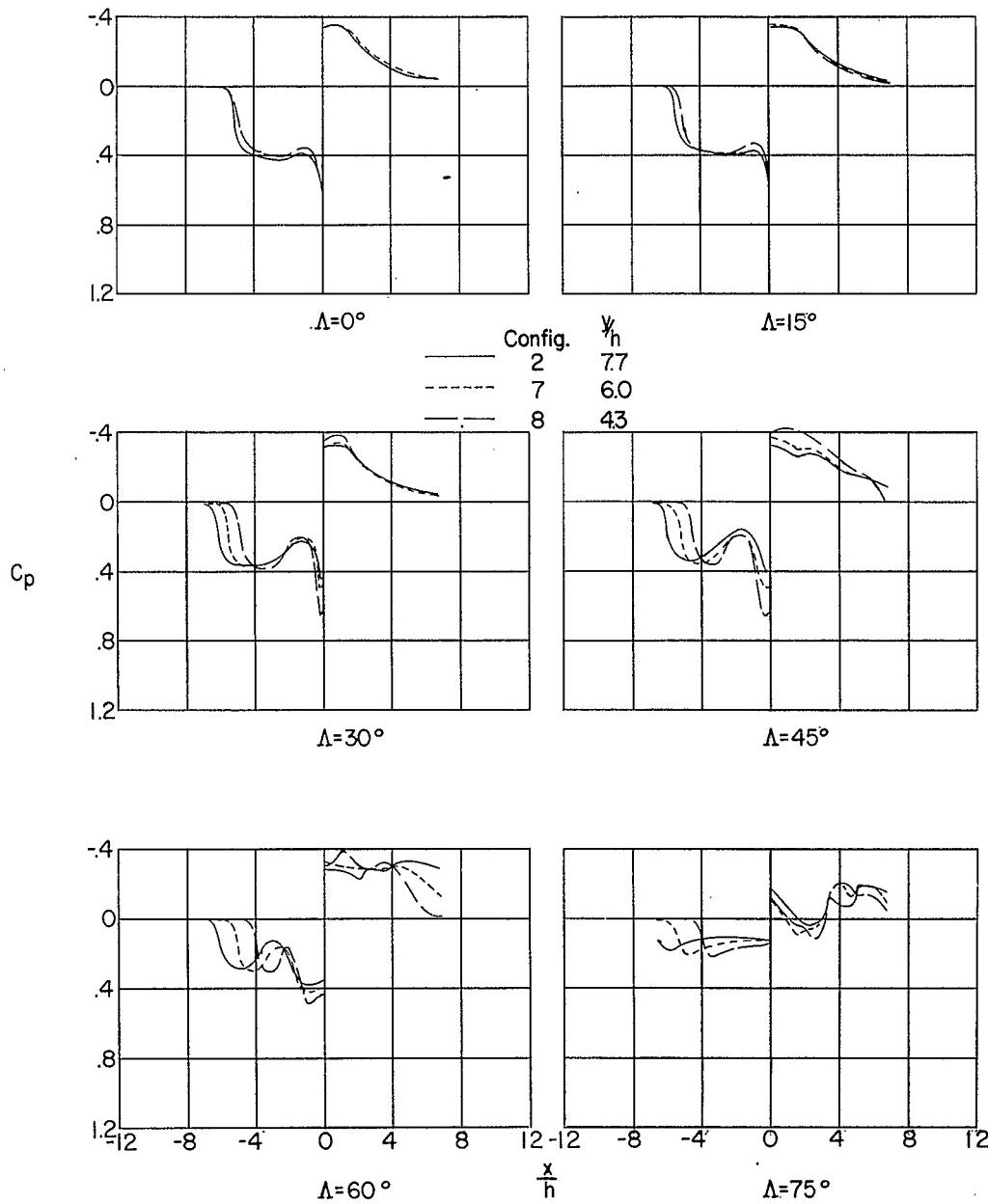
(f) $\Lambda = 75^\circ$.

Figure 5.- Concluded.



(a) Effect of tip cutoffs.

Figure 6.- Comparison of streamwise pressure distributions showing spanwise effects, $M = 1.61$; $R = 0.30 \times 10^6$.

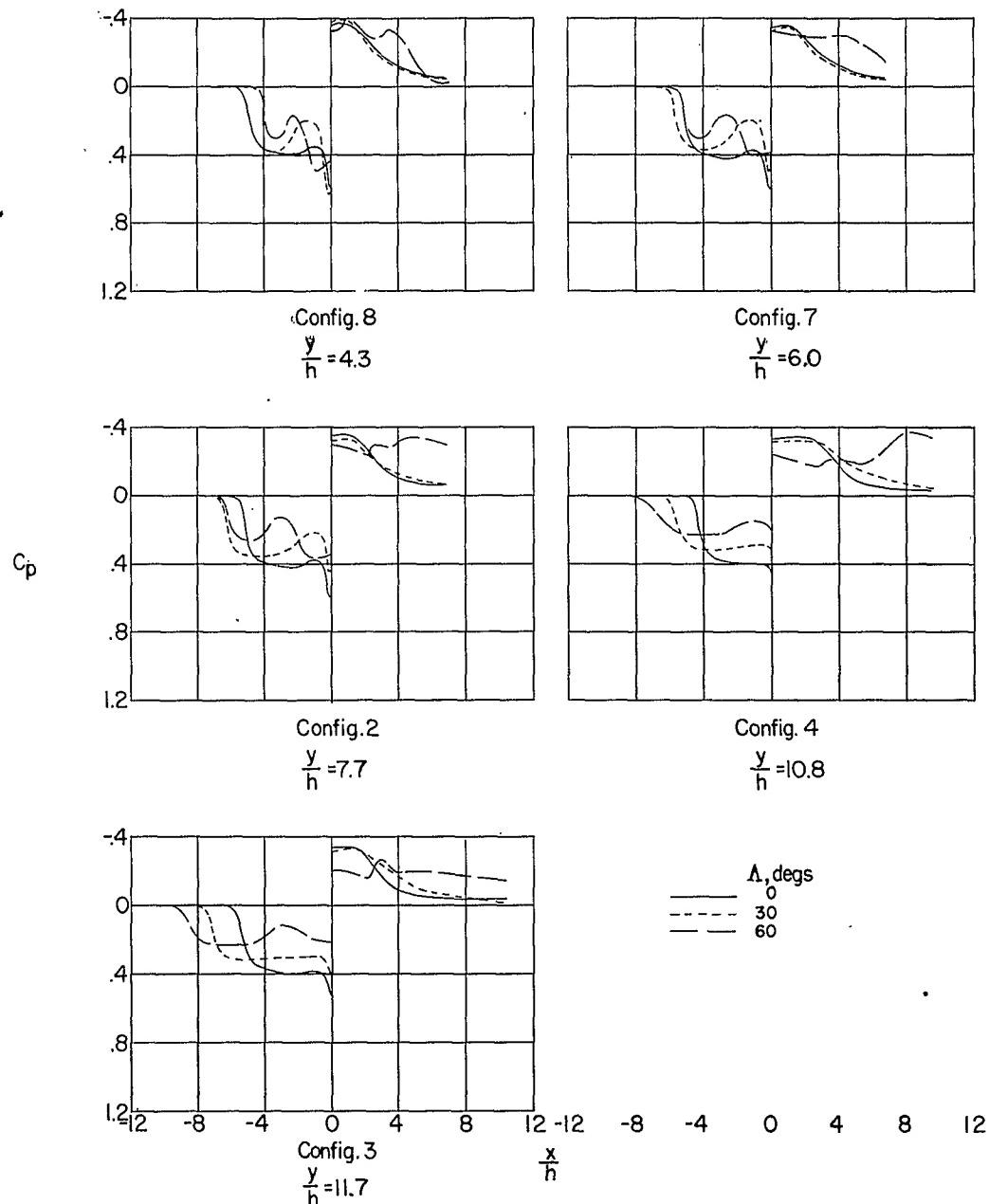
(b) Effect of y/h .

Figure 6.- Concluded.

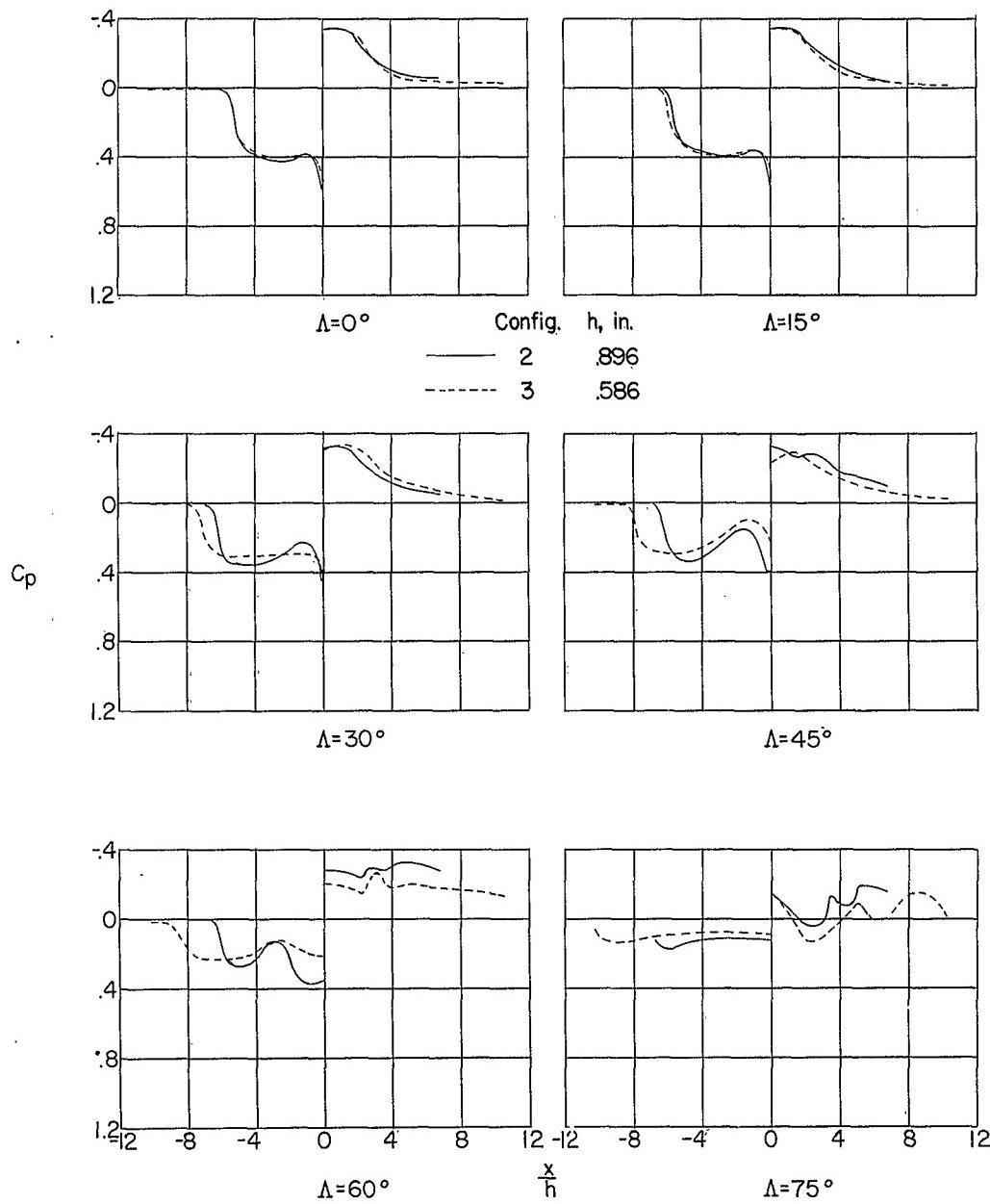
(a) $M = 1.61$.

Figure 7.- Comparison of streamwise pressure distributions showing effect of spoiler height. $R = 0.30 \times 10^6$.

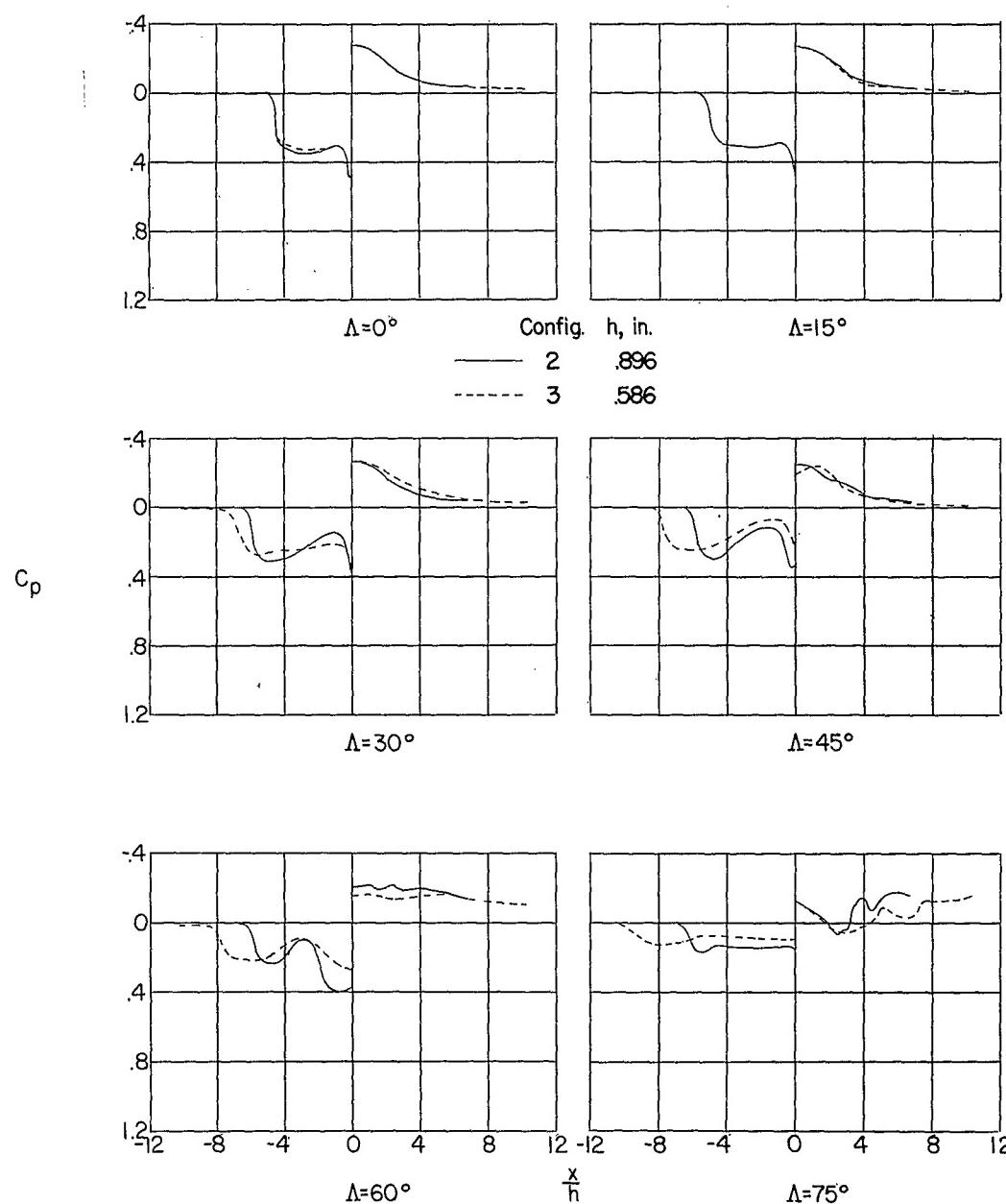
(b) $M = 2.01$.

Figure 7.- Concluded.

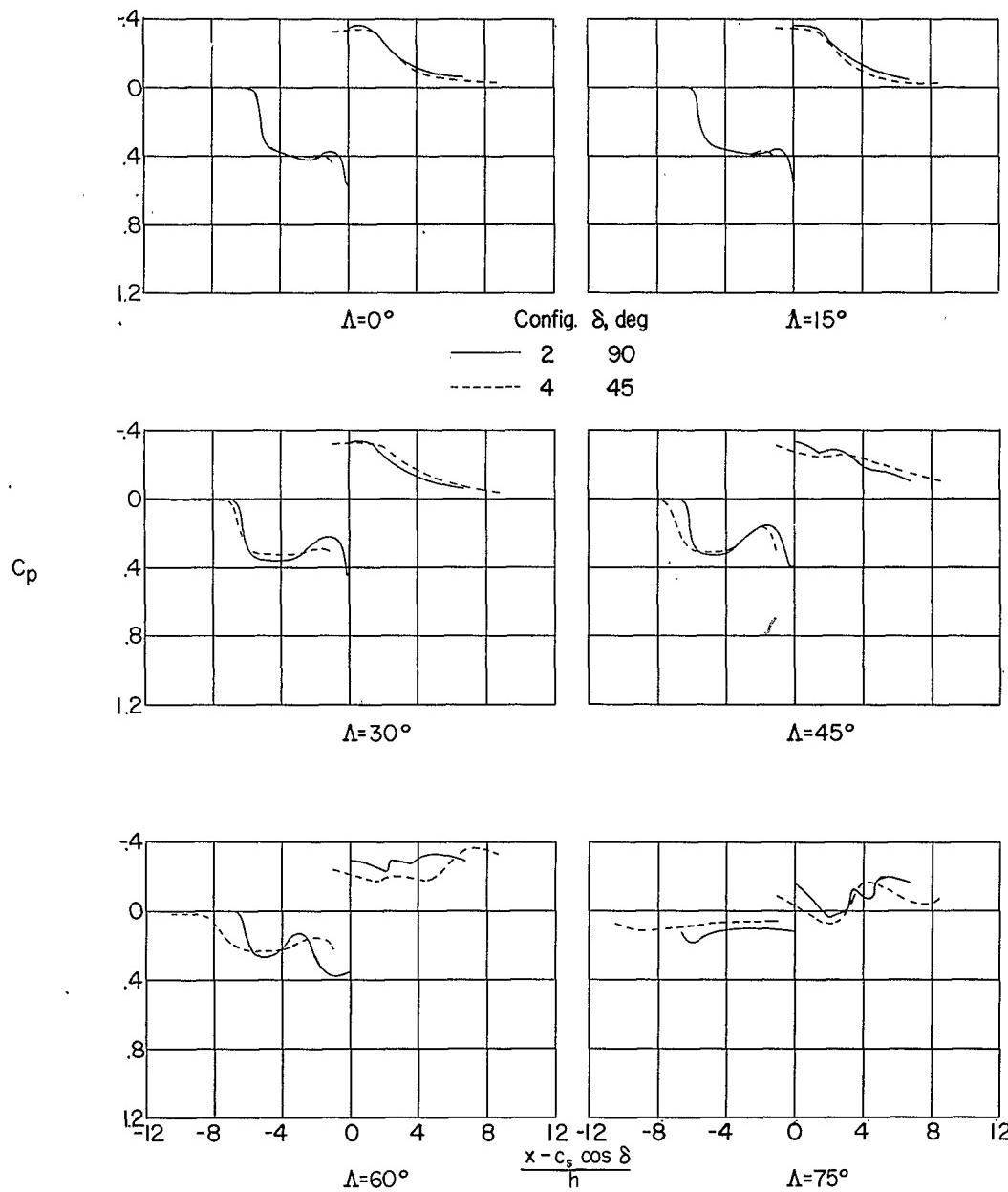
(a) $M = 1.61.$

Figure 8.- Comparison of streamwise pressure distributions showing effect of spoiler deflection angle. $R = 0.30 \times 10^6$.

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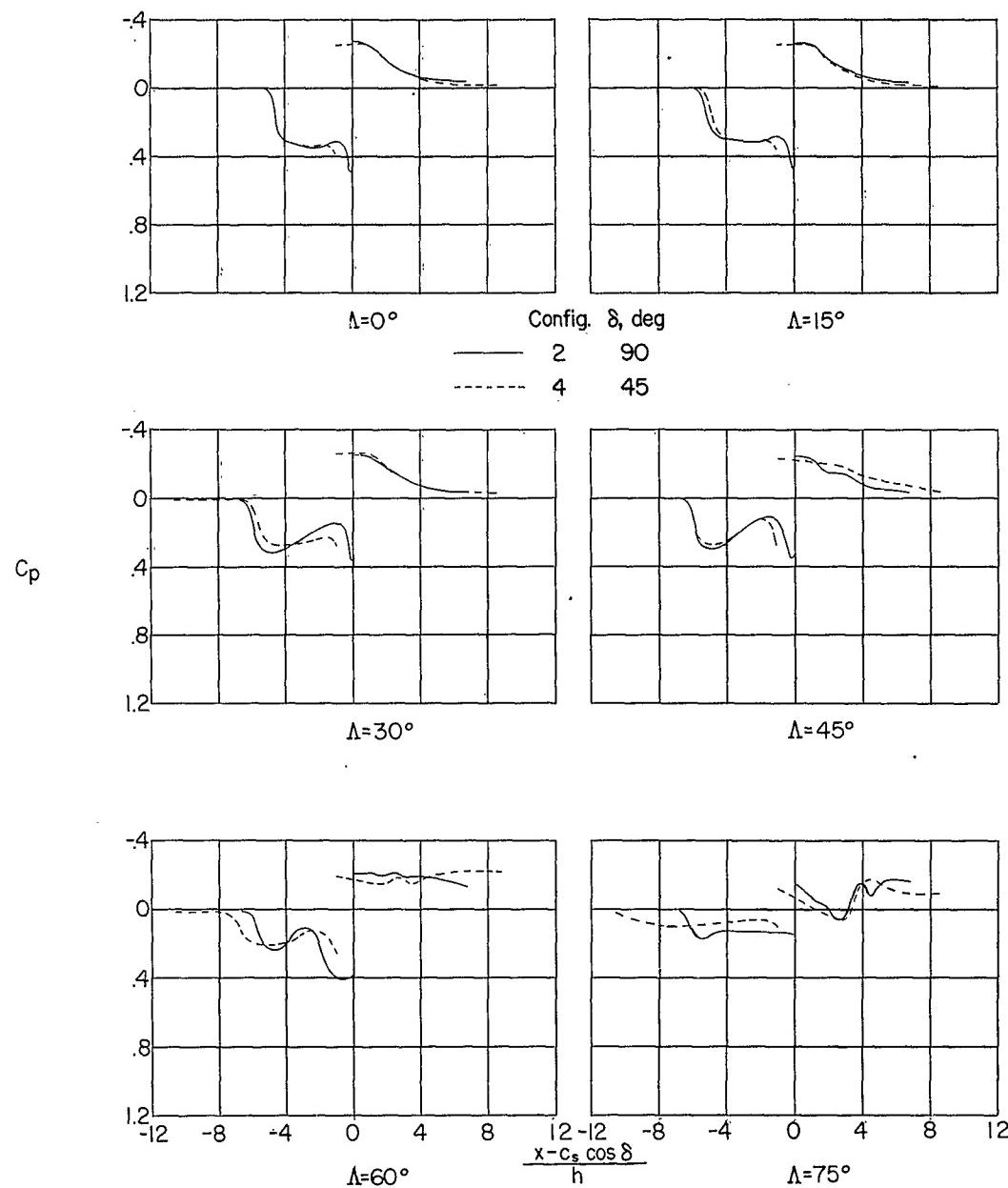
(b) $M = 2.01$.

Figure 8.- Concluded.

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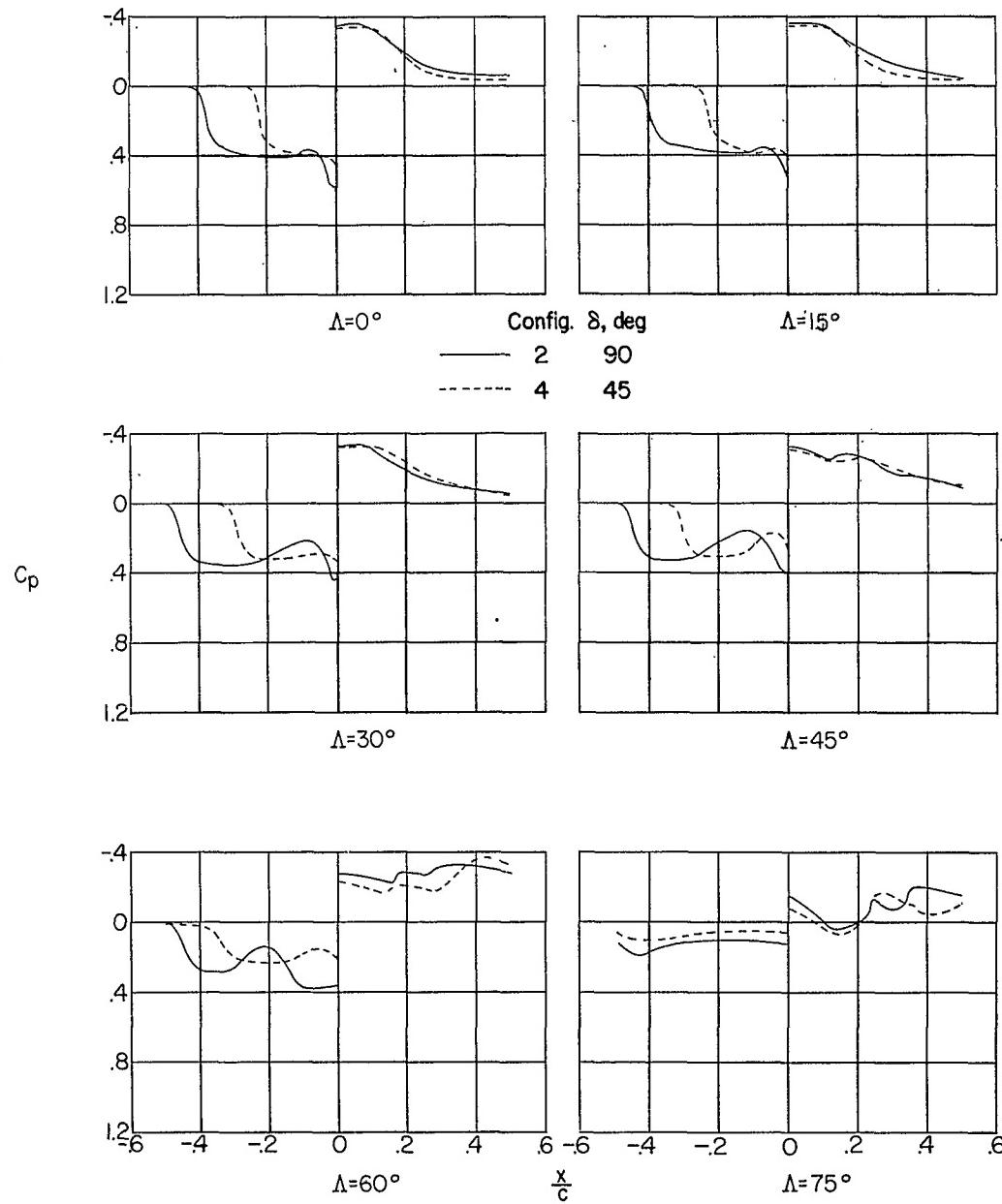


Figure 9.- Effect of spoiler deflection angle on the streamwise pressure distributions of a hypothetical flat-plate wing. $M = 1.61$; $R = 0.30 \times 10^6$.

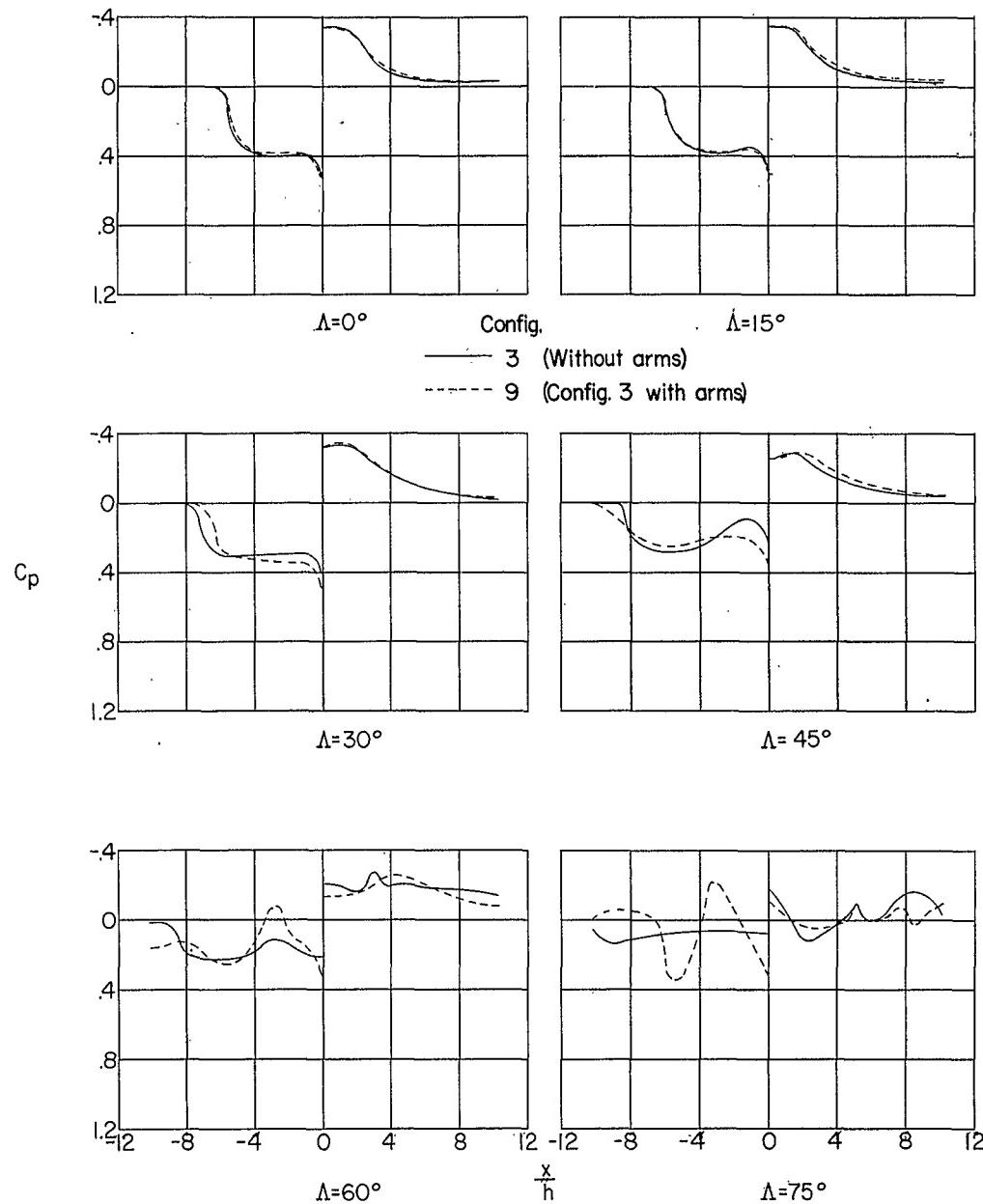


Figure 10.- Comparison of streamwise pressure distributions showing effect of the simulated actuator arms. $M = 1.61$; $R = 0.30 \times 10^6$.

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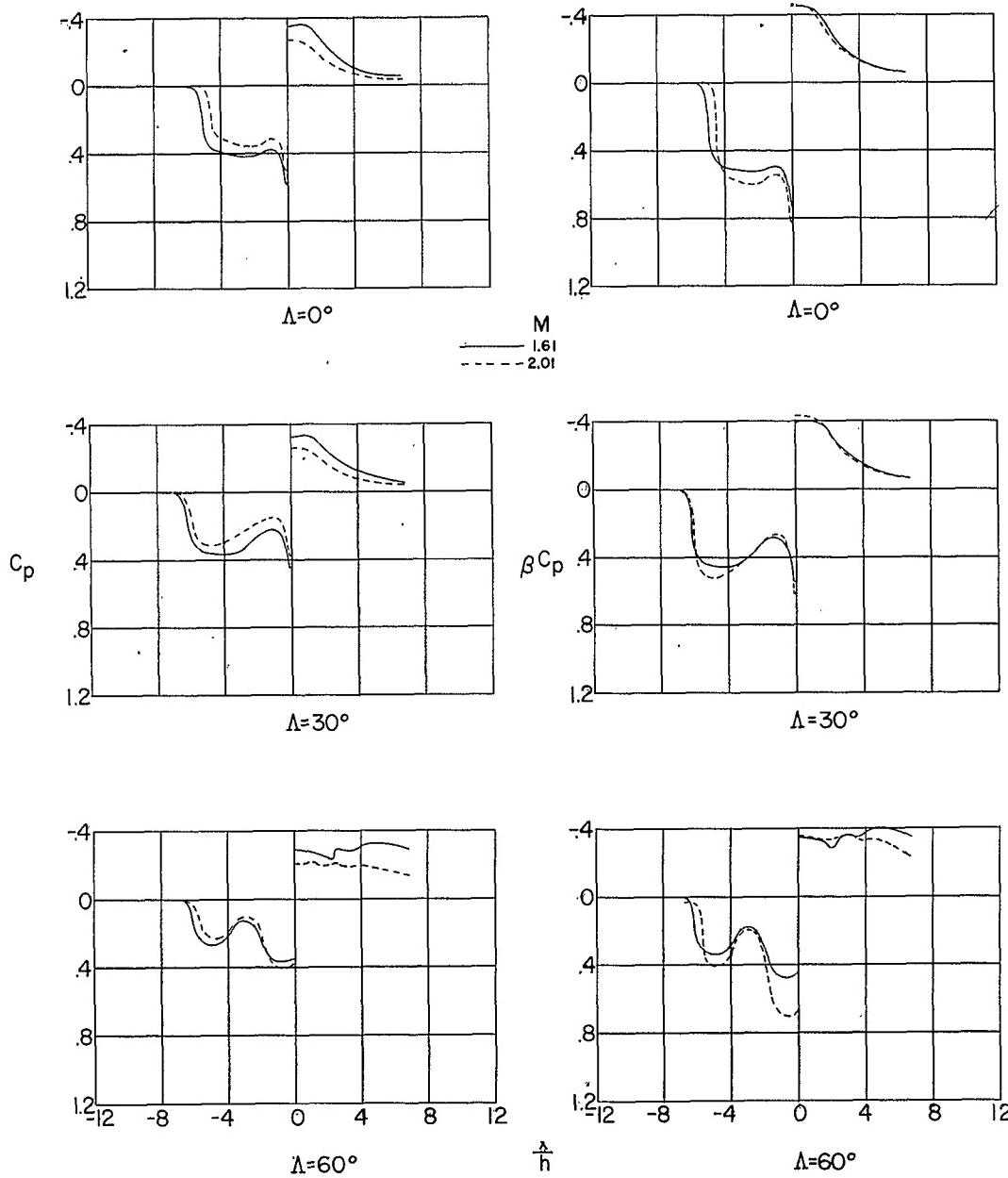


Figure 11.- Effect of Mach number on the streamwise pressure distributions for configuration 2 and correlation of same with β relationship.
 $R = 0.30 \times 10^6$.

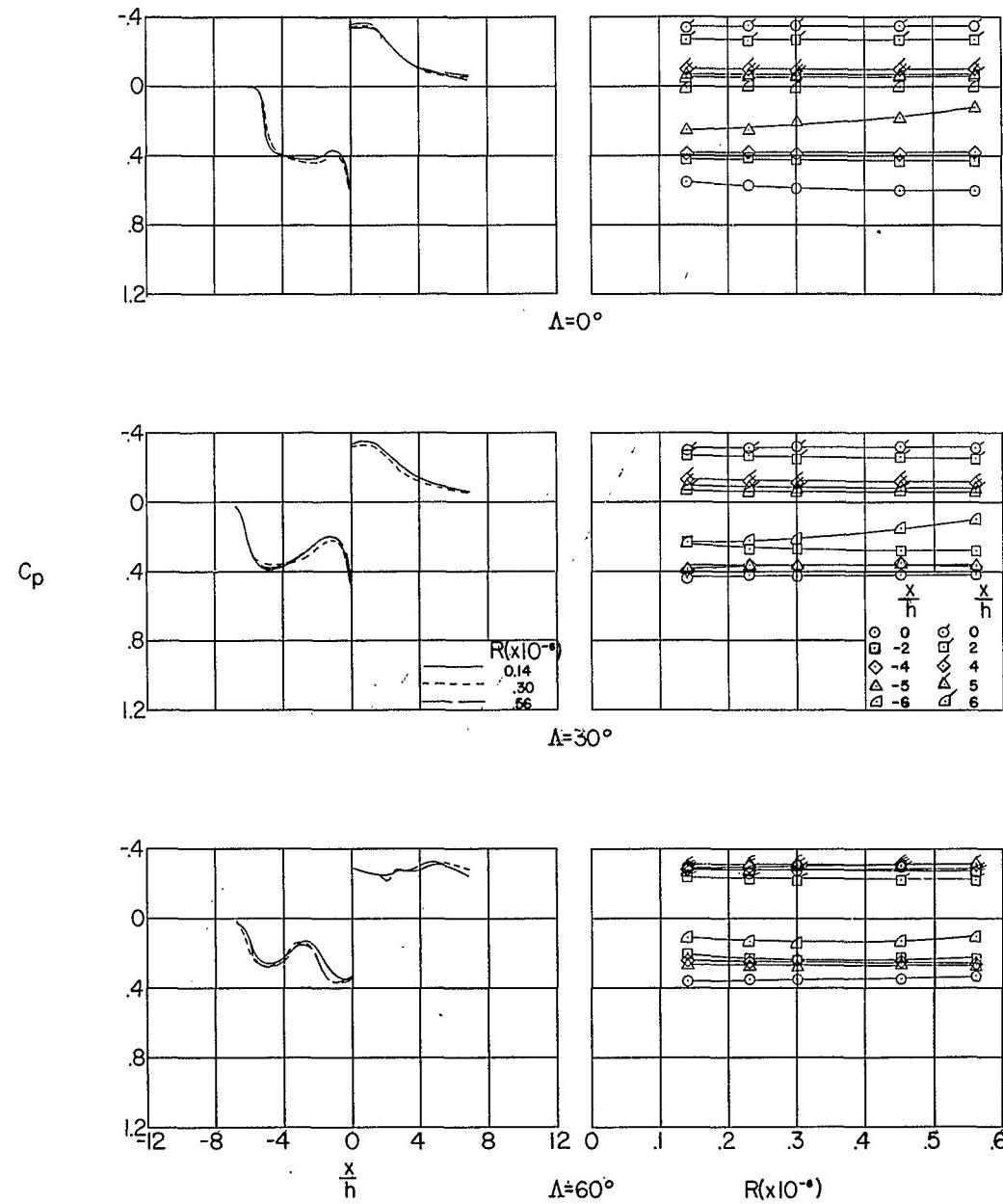


Figure 12.- Effect of Reynolds number on the streamwise pressure distributions for configuration 2. $M = 1.61$.

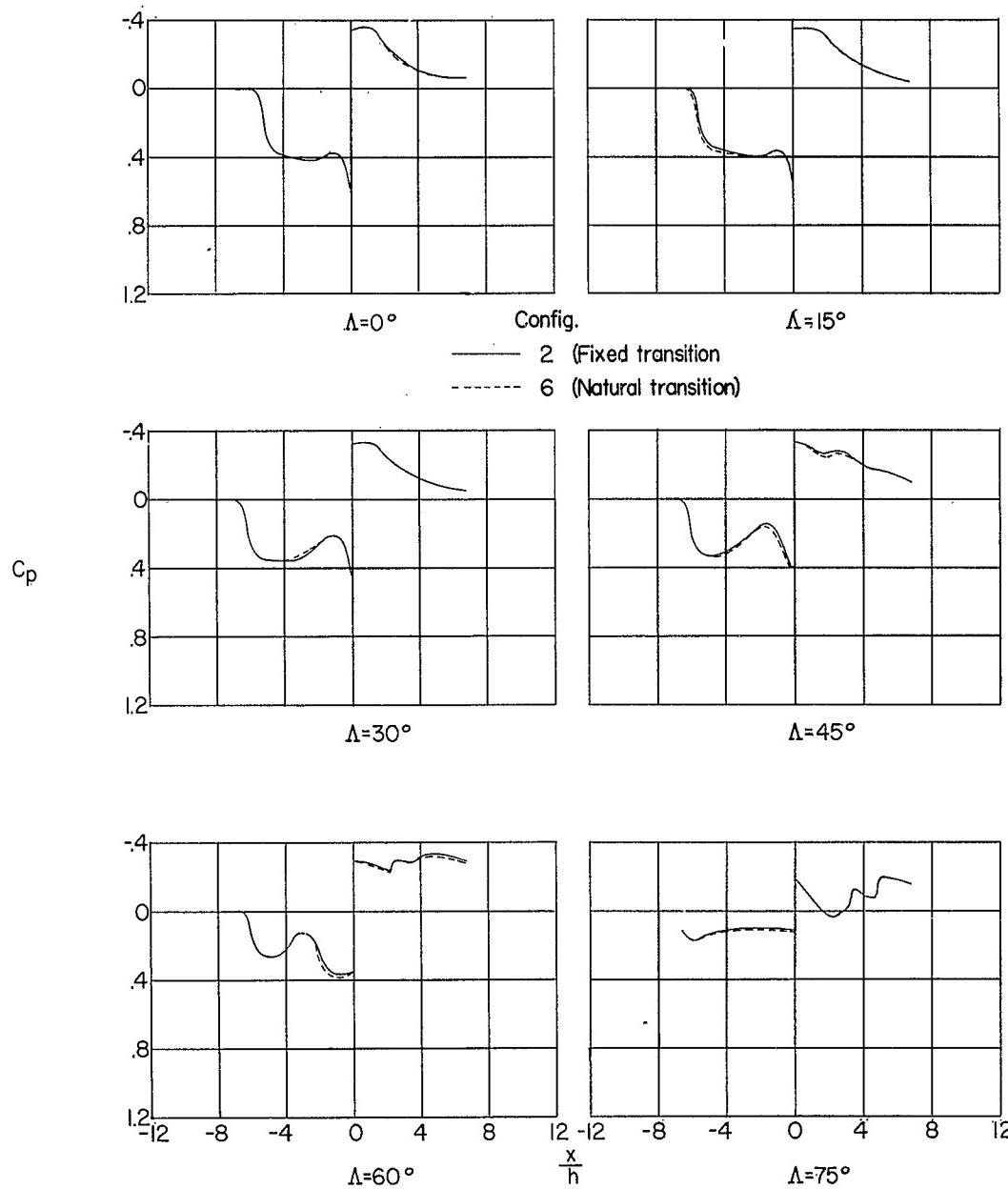
(a) Streamwise distributions. $R = 0.30 \times 10^6$.

Figure 13.- Effect of fixing transition on pressure distributions.
 $M = 1.61$.

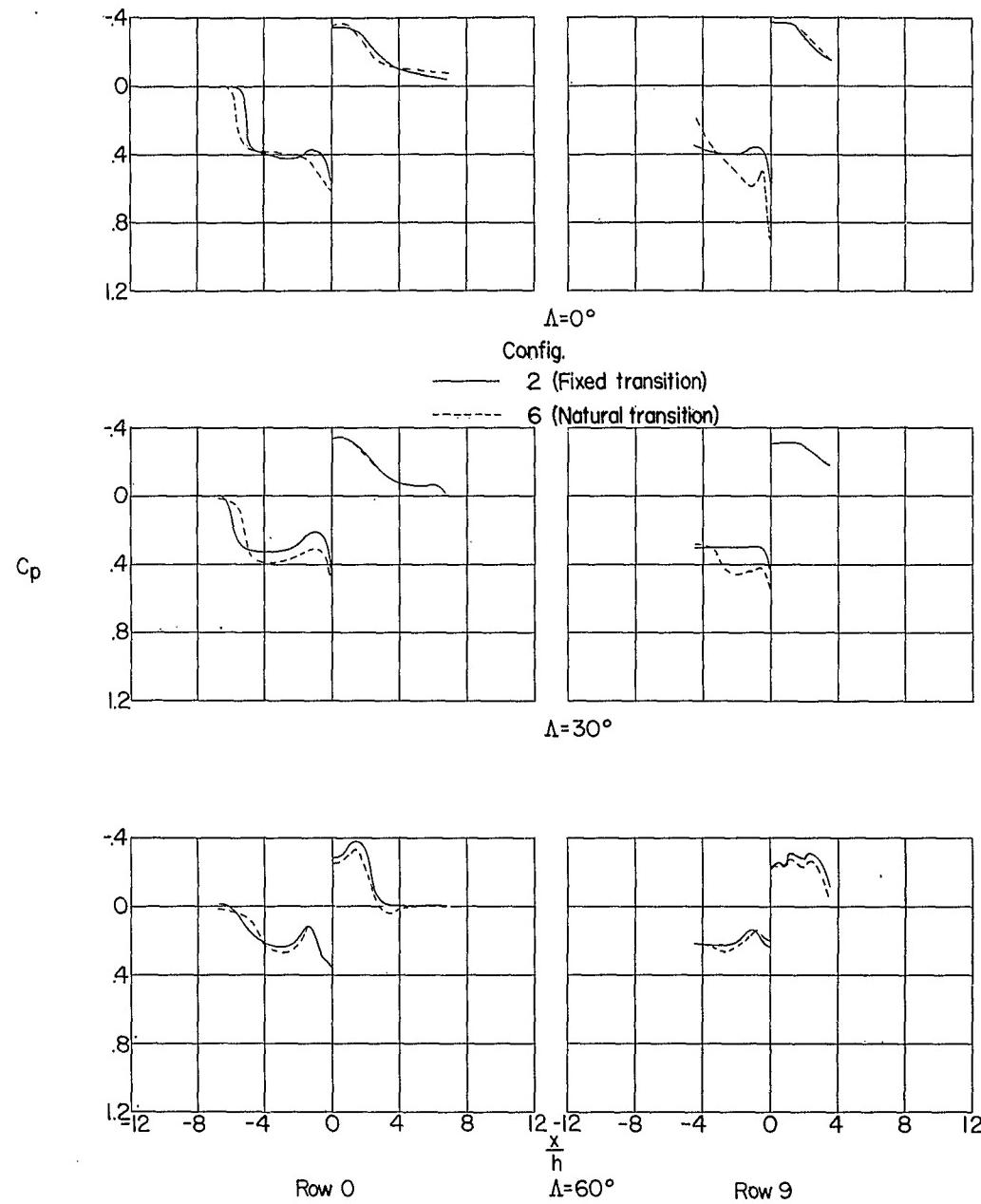
(b) Perpendicular distributions. $R = 0.14 \times 10^6$.

Figure 13.- Concluded.

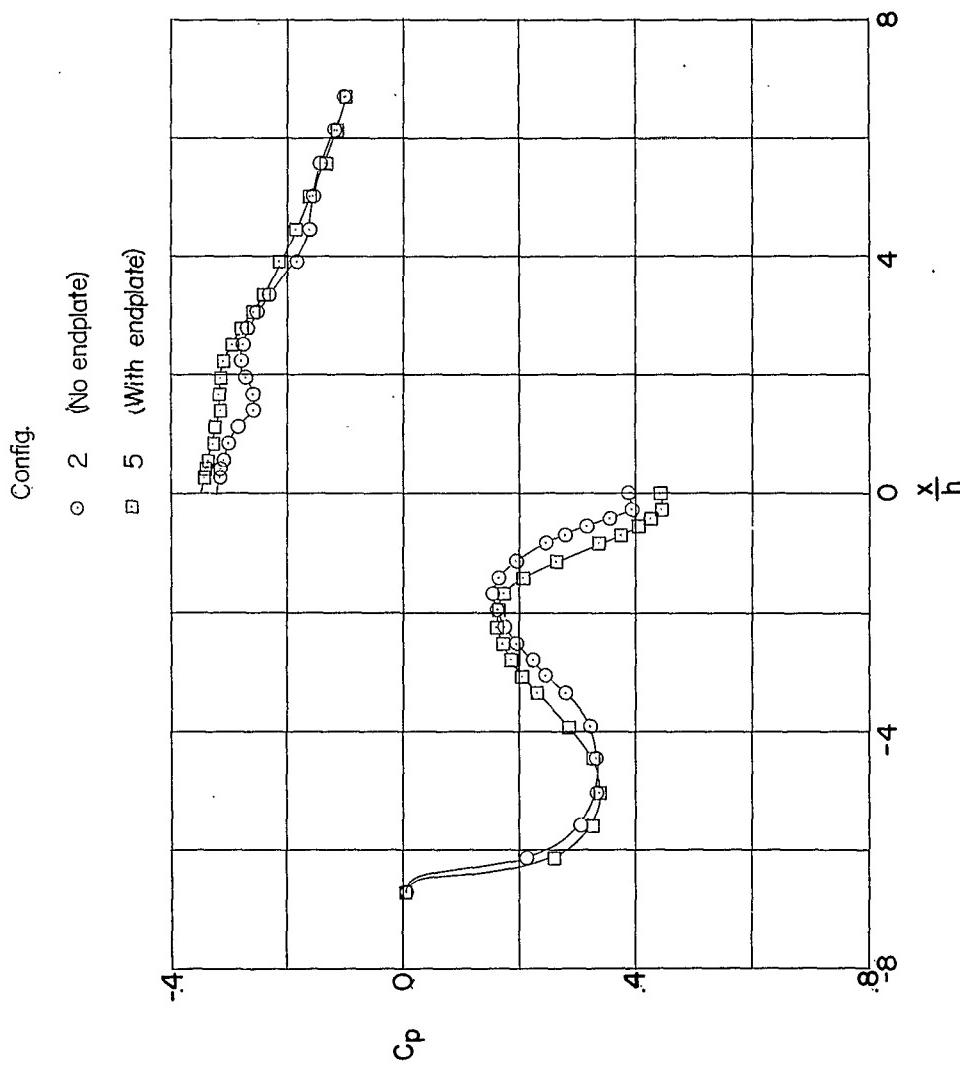


Figure 14.- Effect of the endplate on the streamwise pressure distribution.
 $M = 1.61$; $R = 0.30 \times 10^6$; $\Lambda = 45^\circ$.

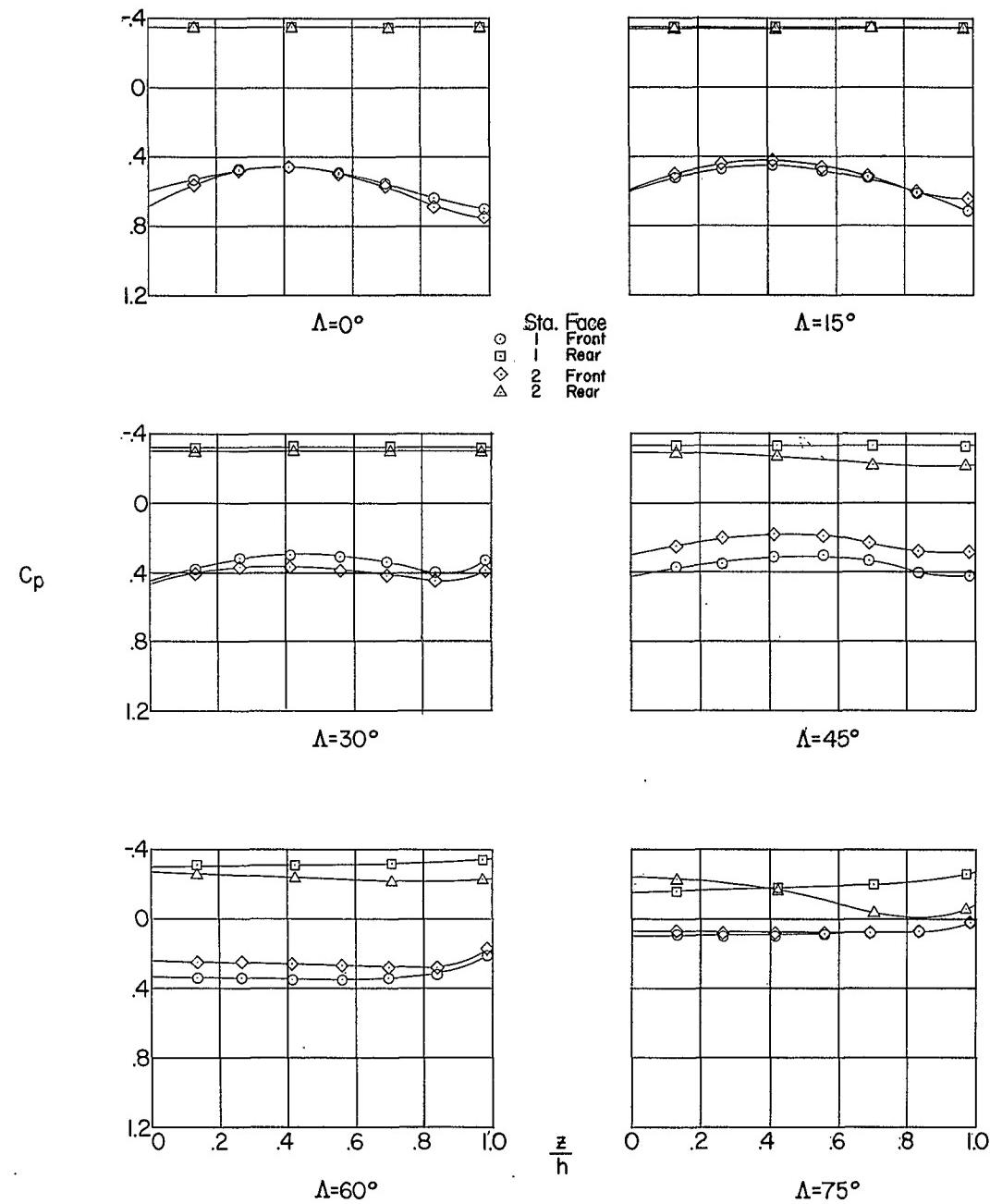
(a) Configuration 2, $M = 1.61$.

Figure 15.- Basic pressure distributions on spoiler faces. $R = 0.30 \times 10^6$.

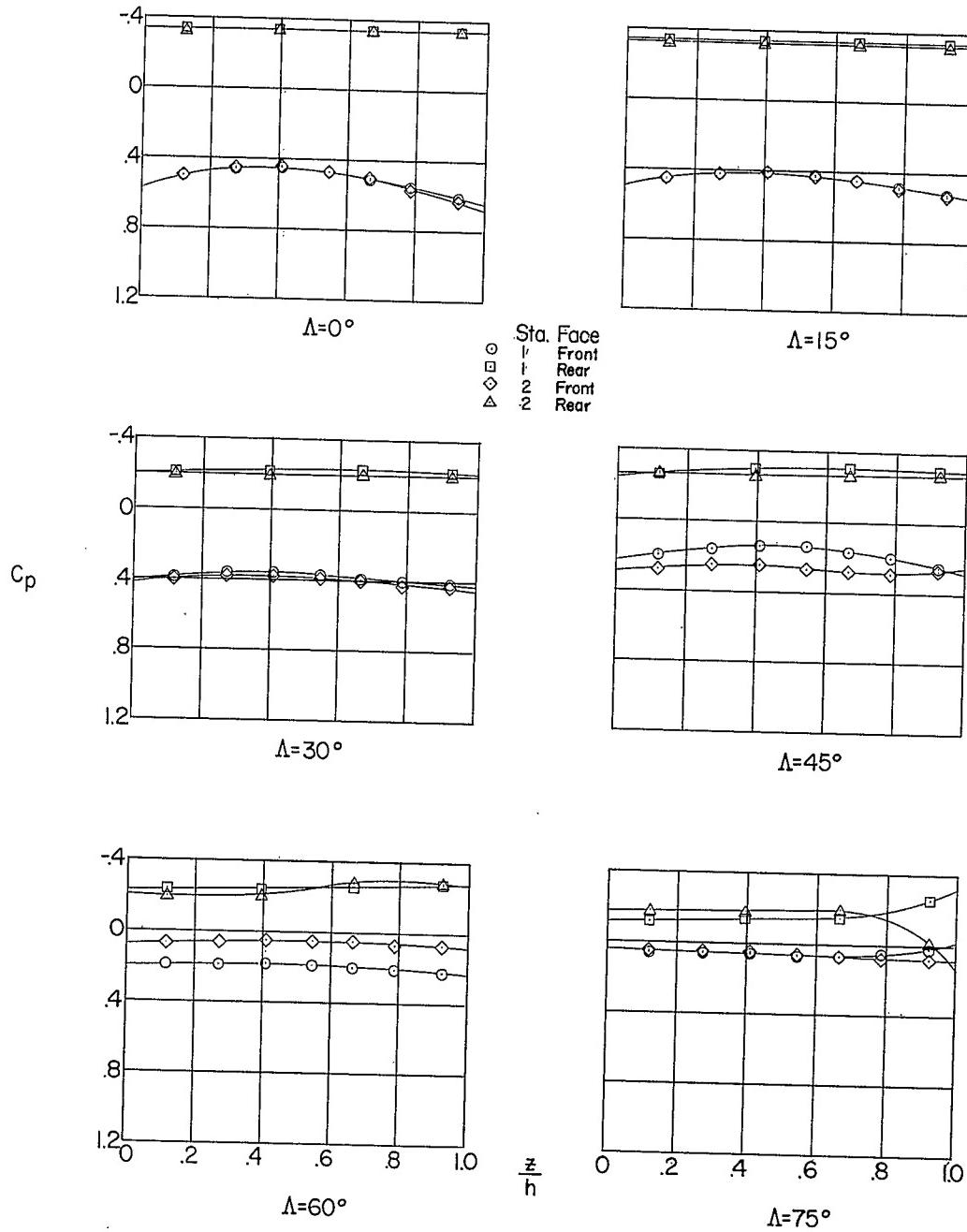
(b) Configuration 3, $M = 1.61$.

Figure 15--Continued.

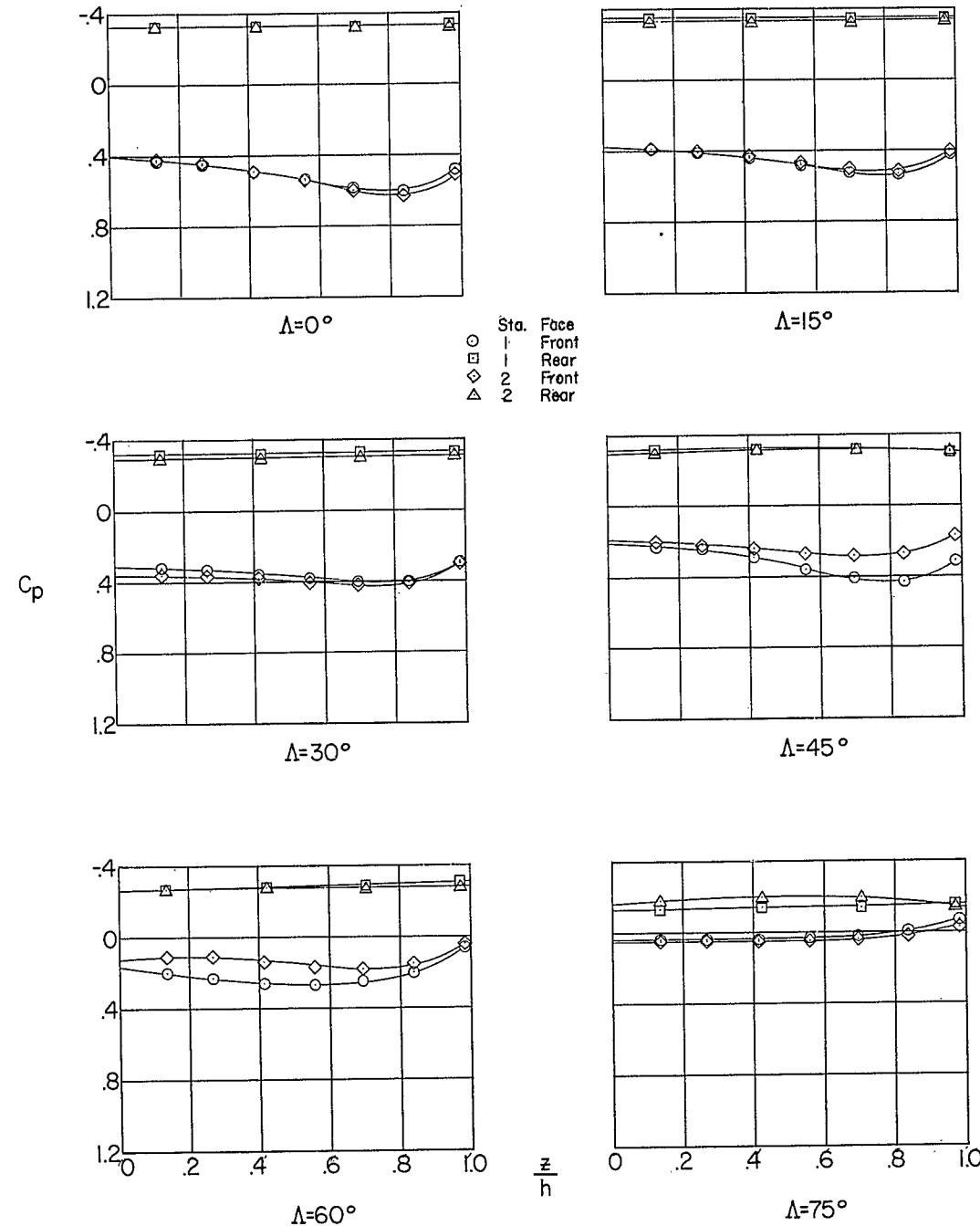
(c) Configuration 4, $M = 1.61$.

Figure 15.- Continued.

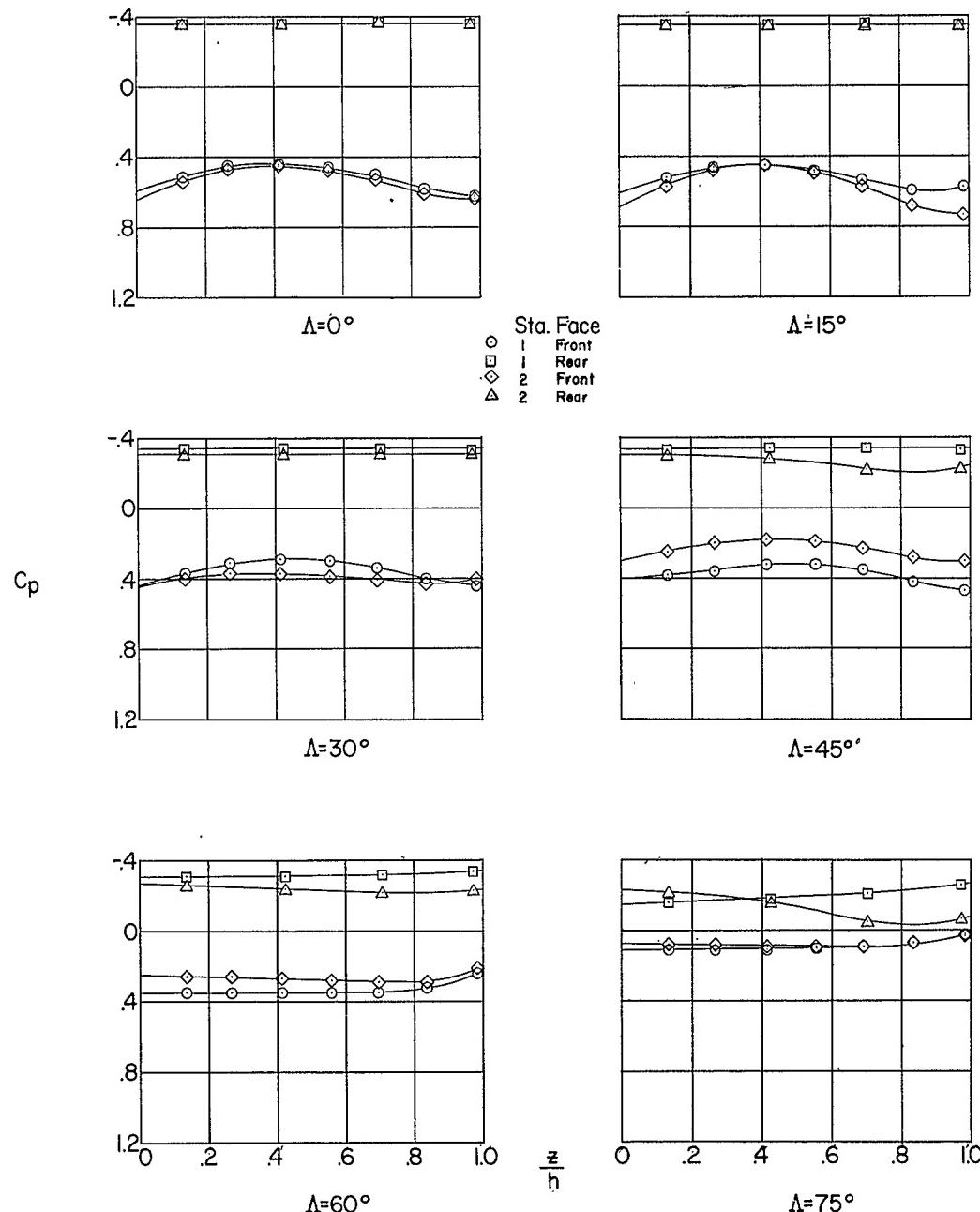
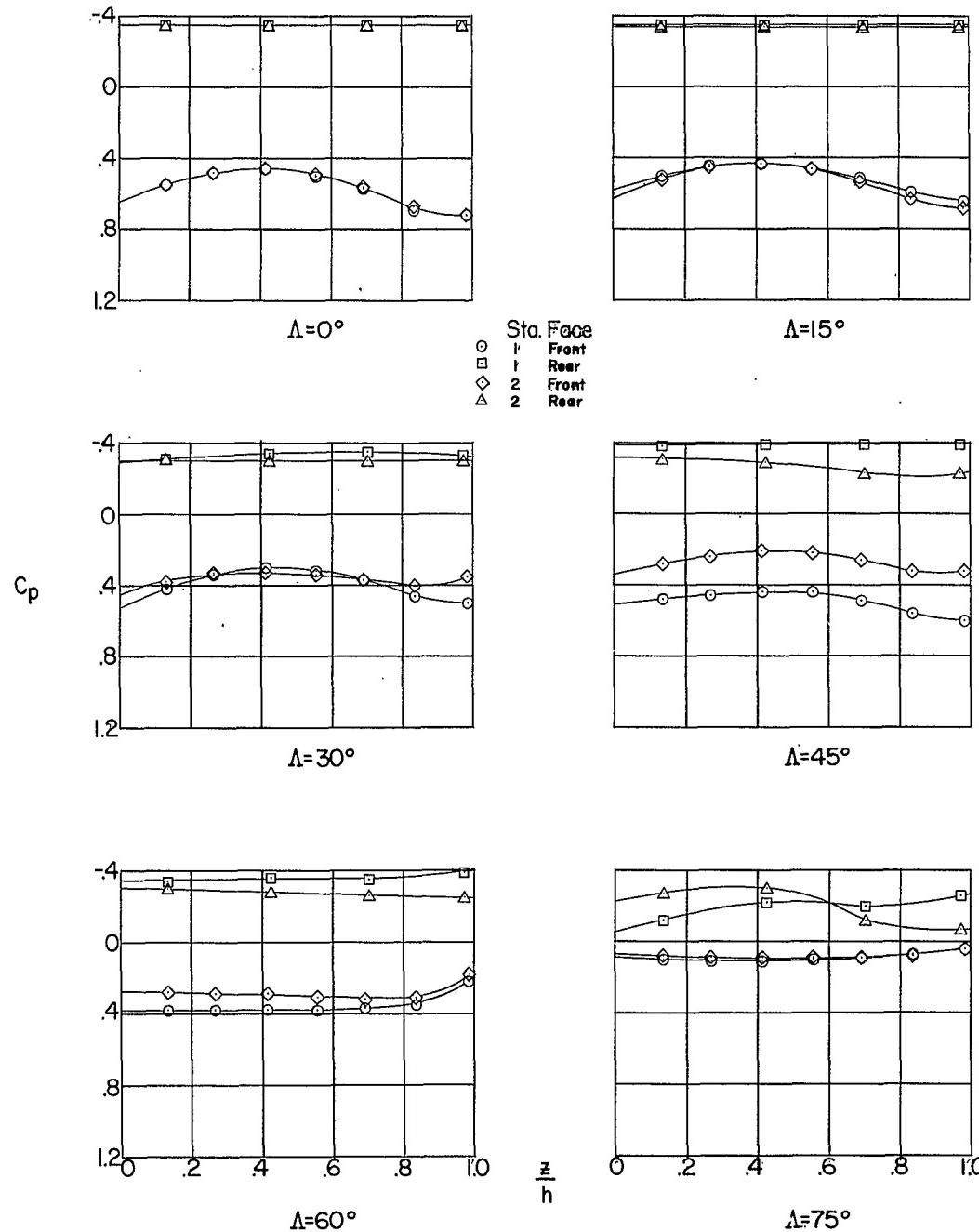
(d) Configuration 6, $M = 1.61$.

Figure 15.- Continued.



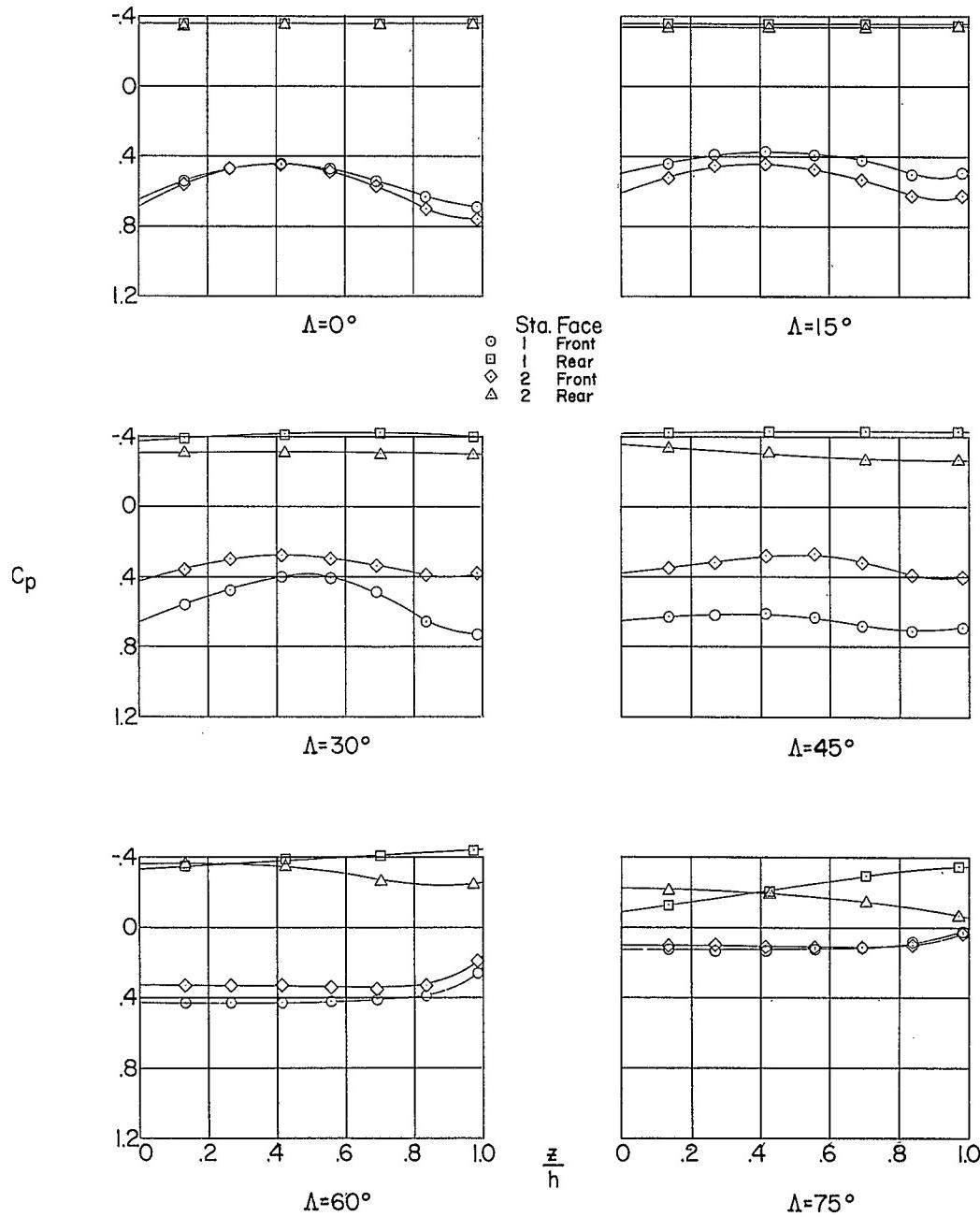
(f) Configuration 8, $M = 1.61$.

Figure 15.- Continued.

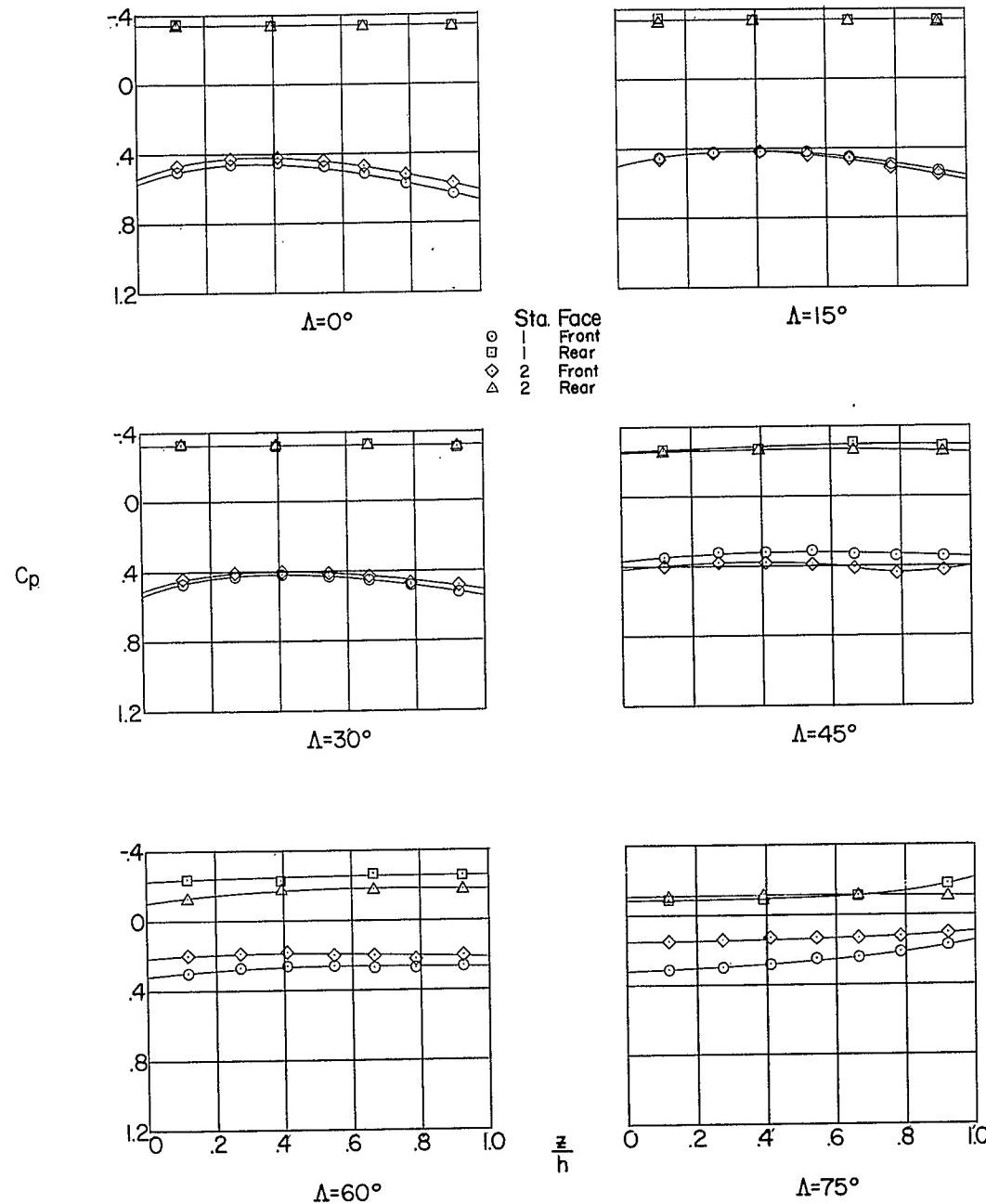
(g) Configuration 9, $M = 1.61$.

Figure 15.- Continued.

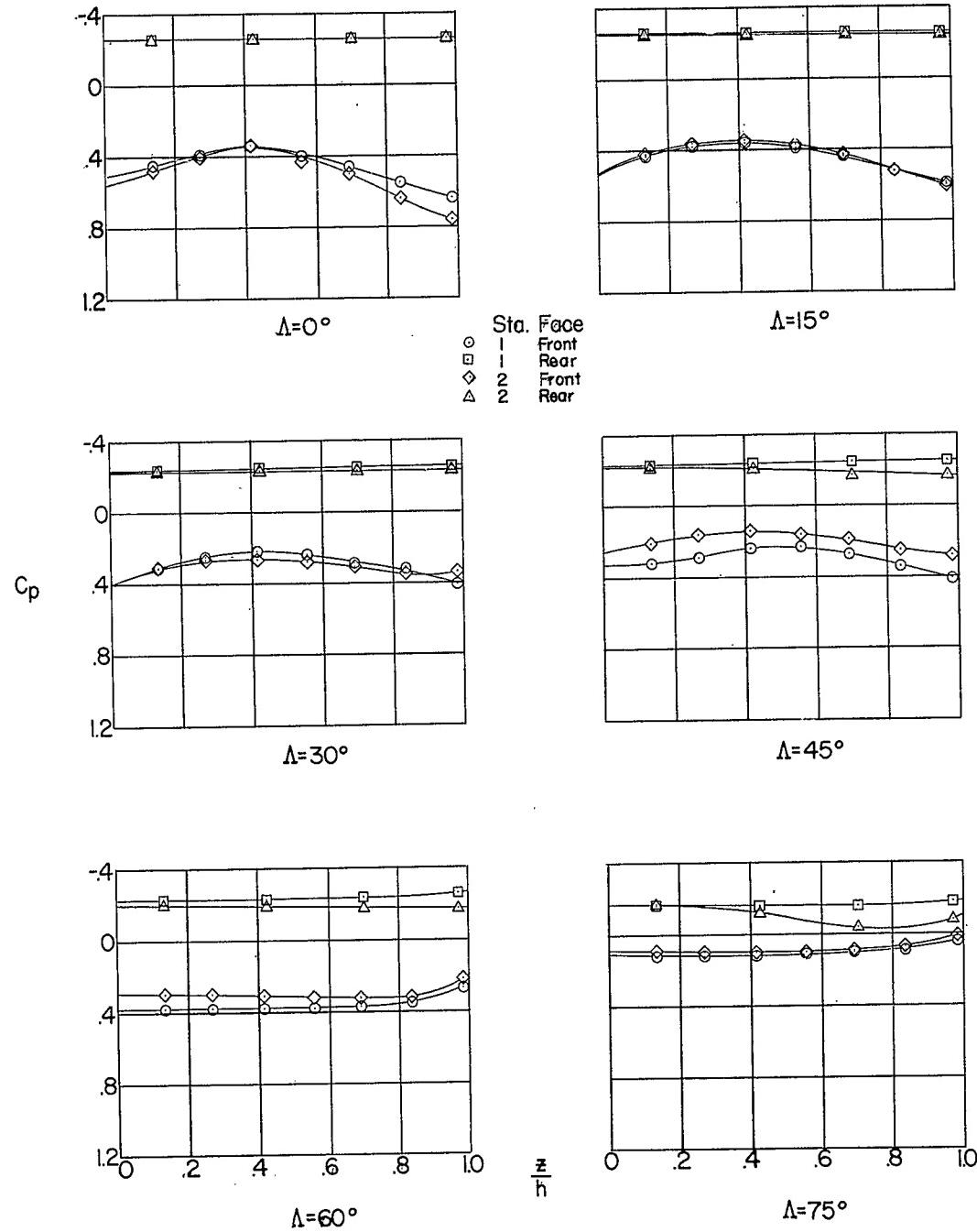
(h) Configuration 2, $M = 2.01$.

Figure 15.- Continued.

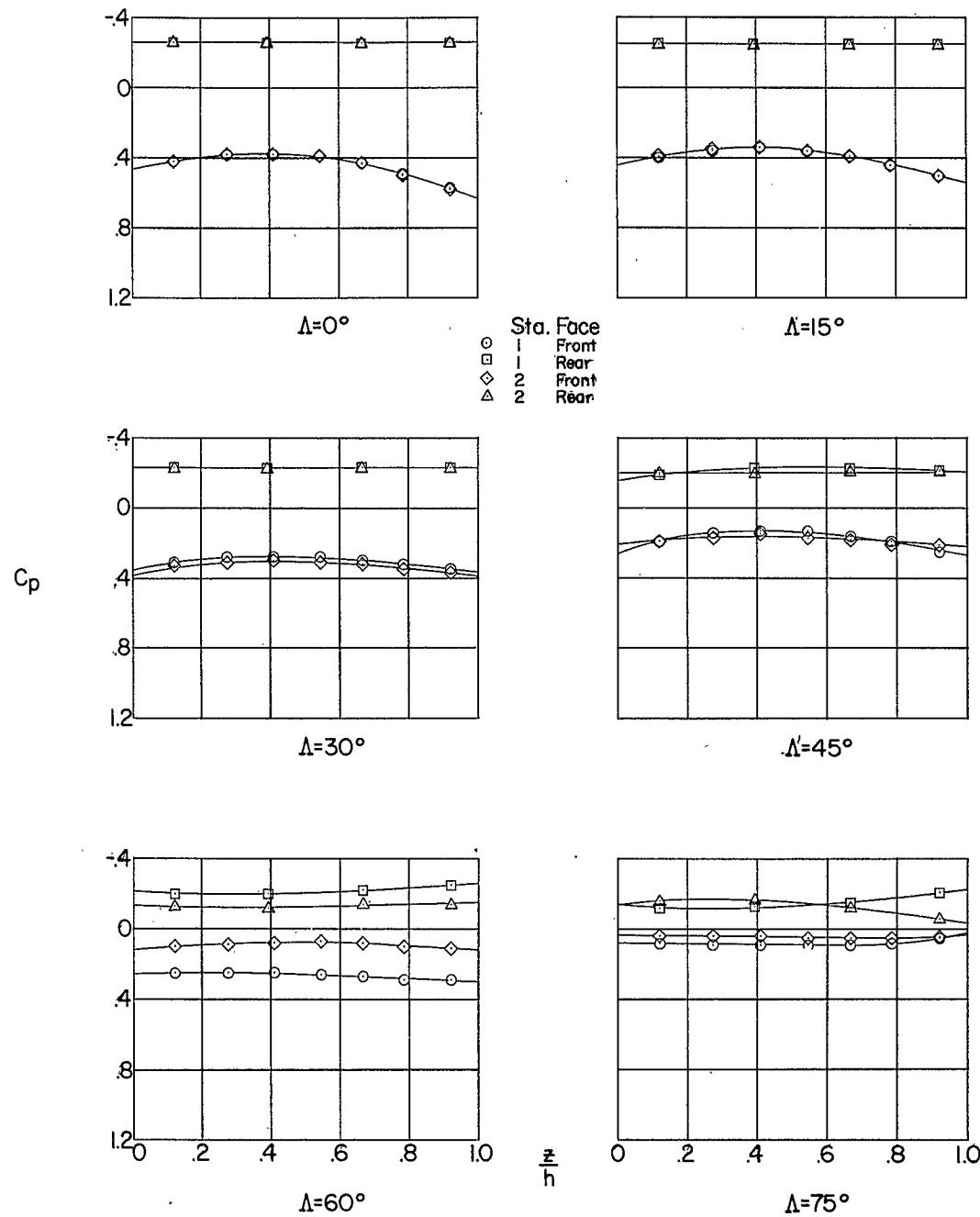
(i) Configuration 3, $M = 2.01$.

Figure 15.- Continued.

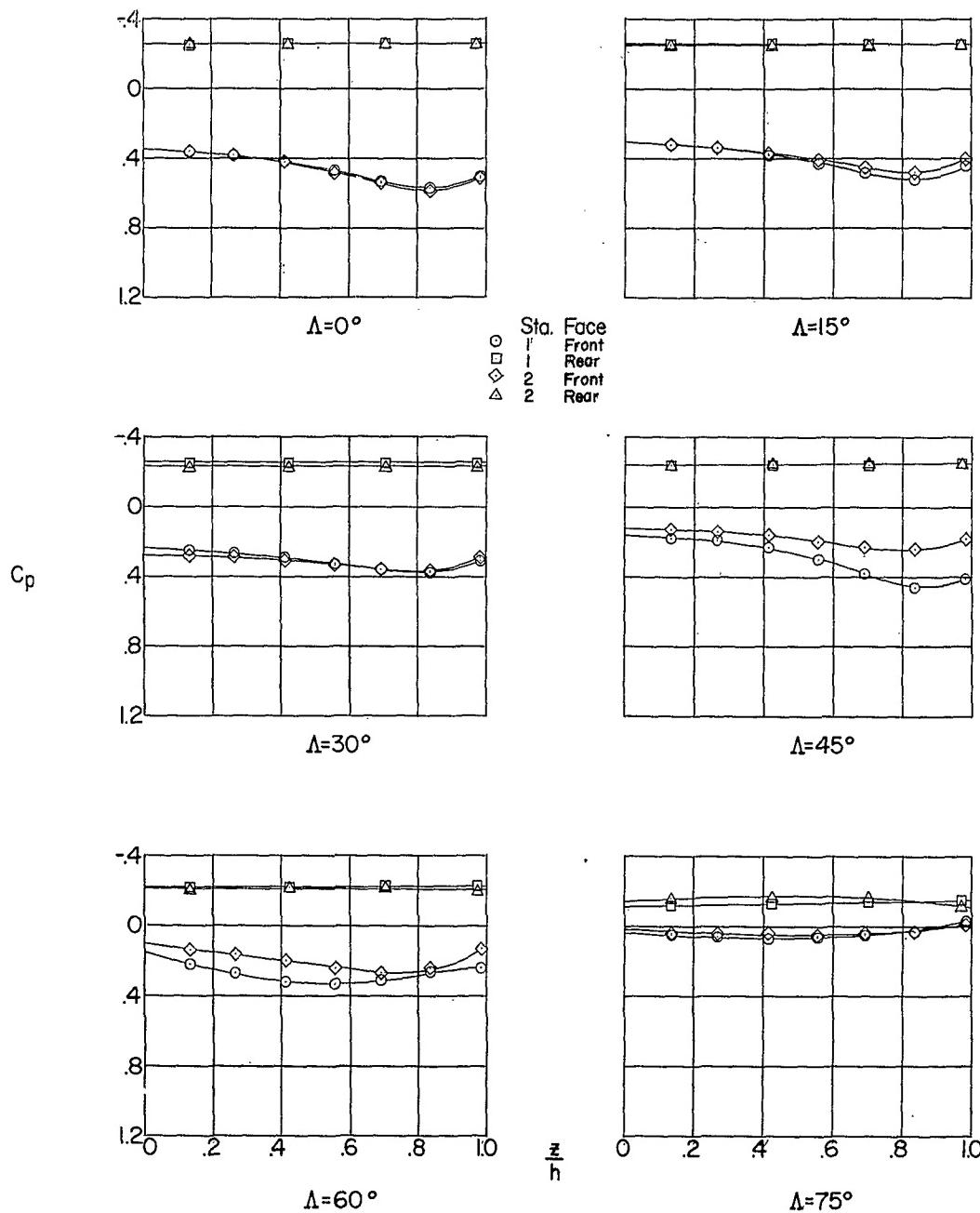
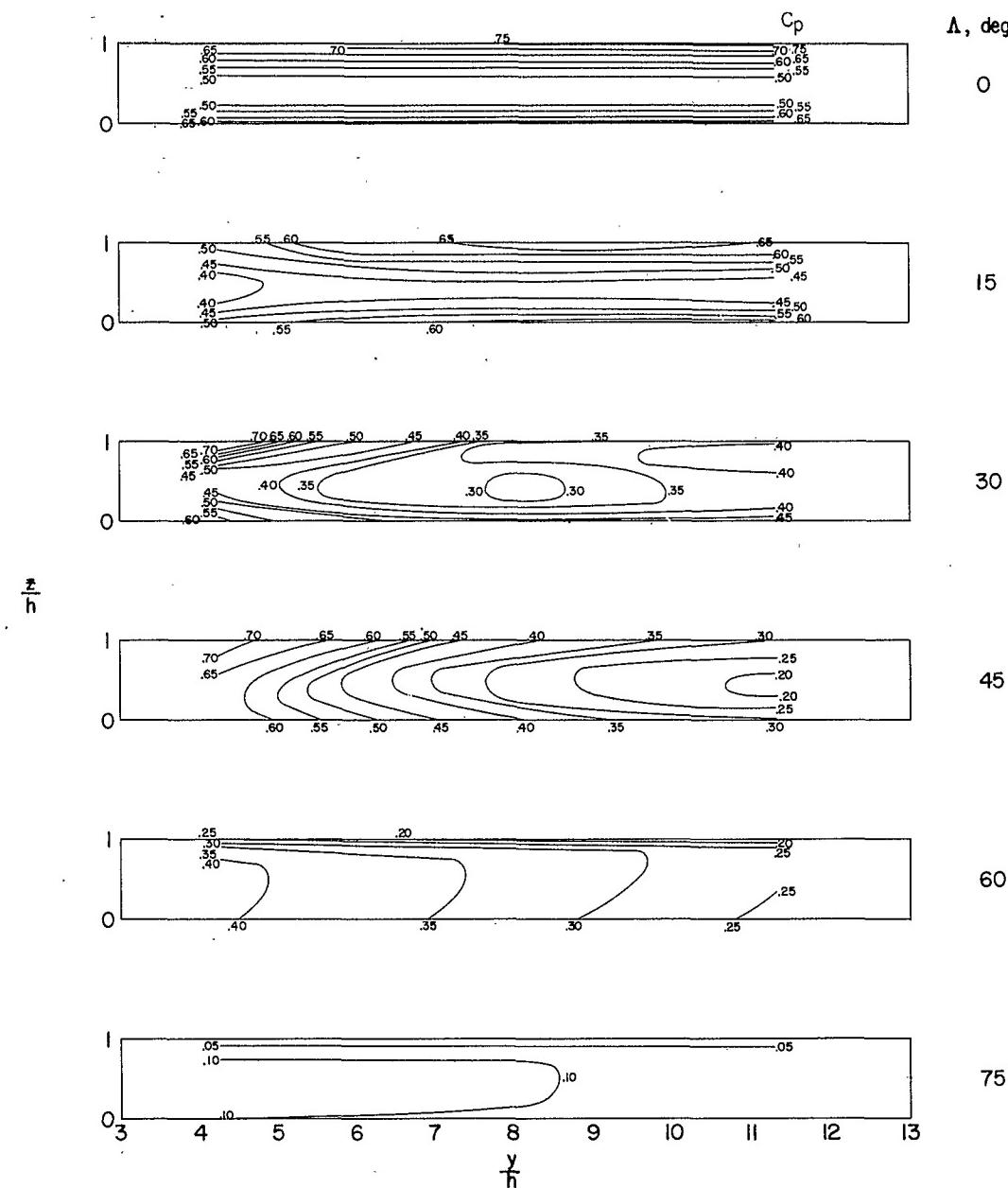
(j) Configuration 4, $M = 2.01$.

Figure 15.- Concluded.



(a) Front face pressure-coefficient contours.

Figure 16.- Spanwise variations in pressures on spoiler faces. Configurations 2, 7, and 8; $M = 1.61$; $R = 0.30 \times 10^6$.

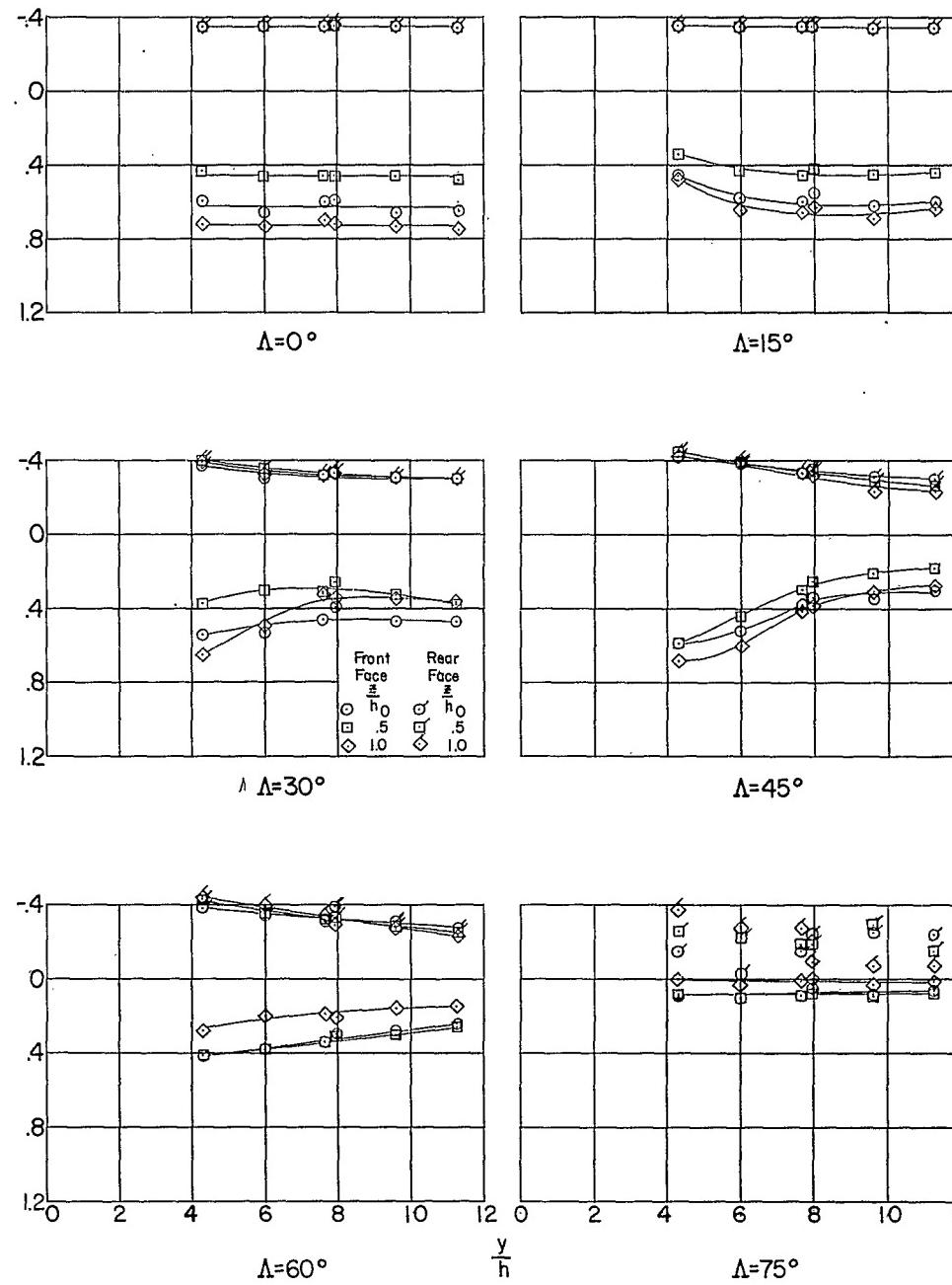
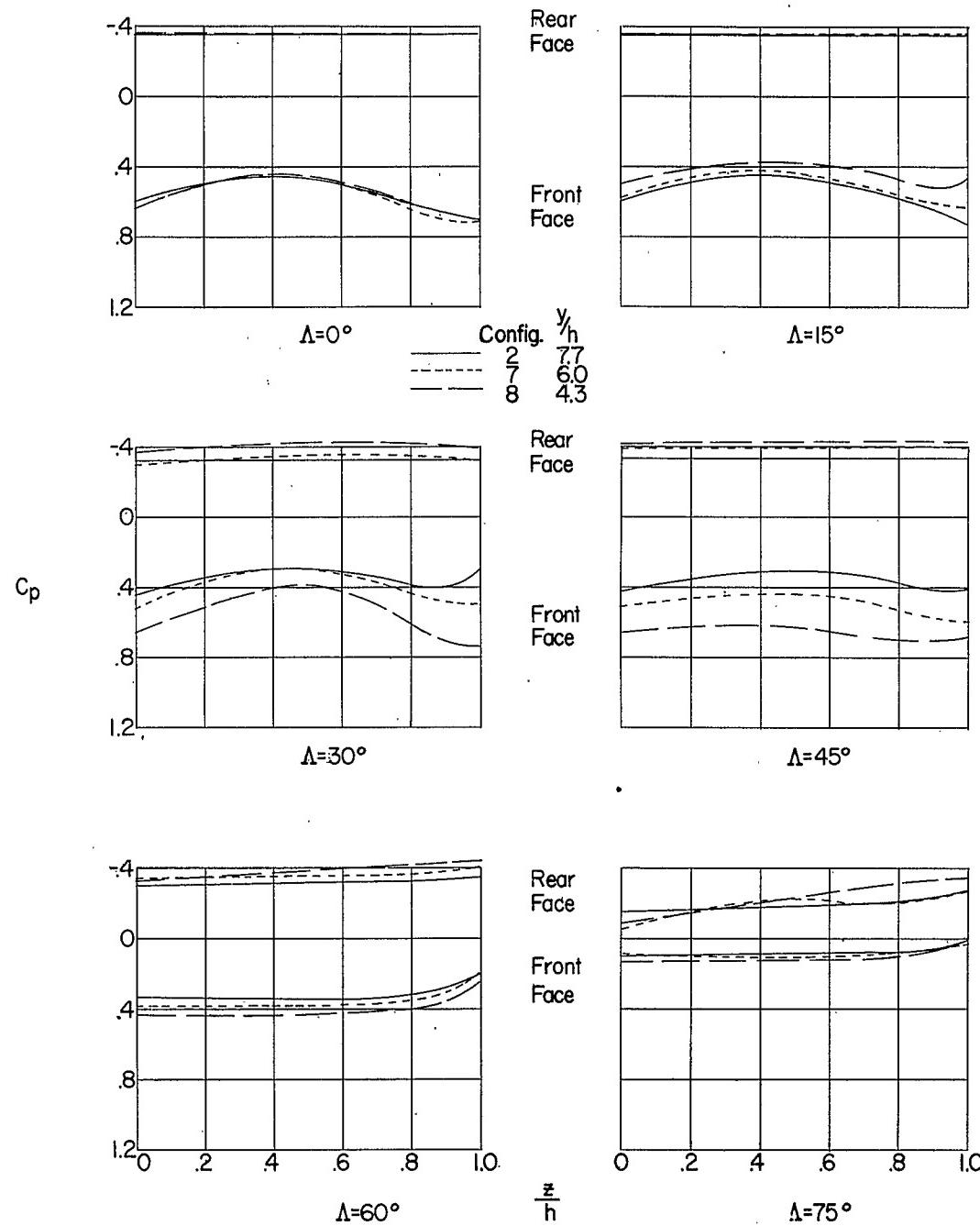
(b) Variations across span at constant z/h .

Figure 16.- Concluded.



(a) Effect of tip cutoffs. Station 1.

Figure 17.- Comparison of spoiler-face pressure distributions showing spanwise effects. $M = 1.61$; $R = 0.30 \times 10^6$.

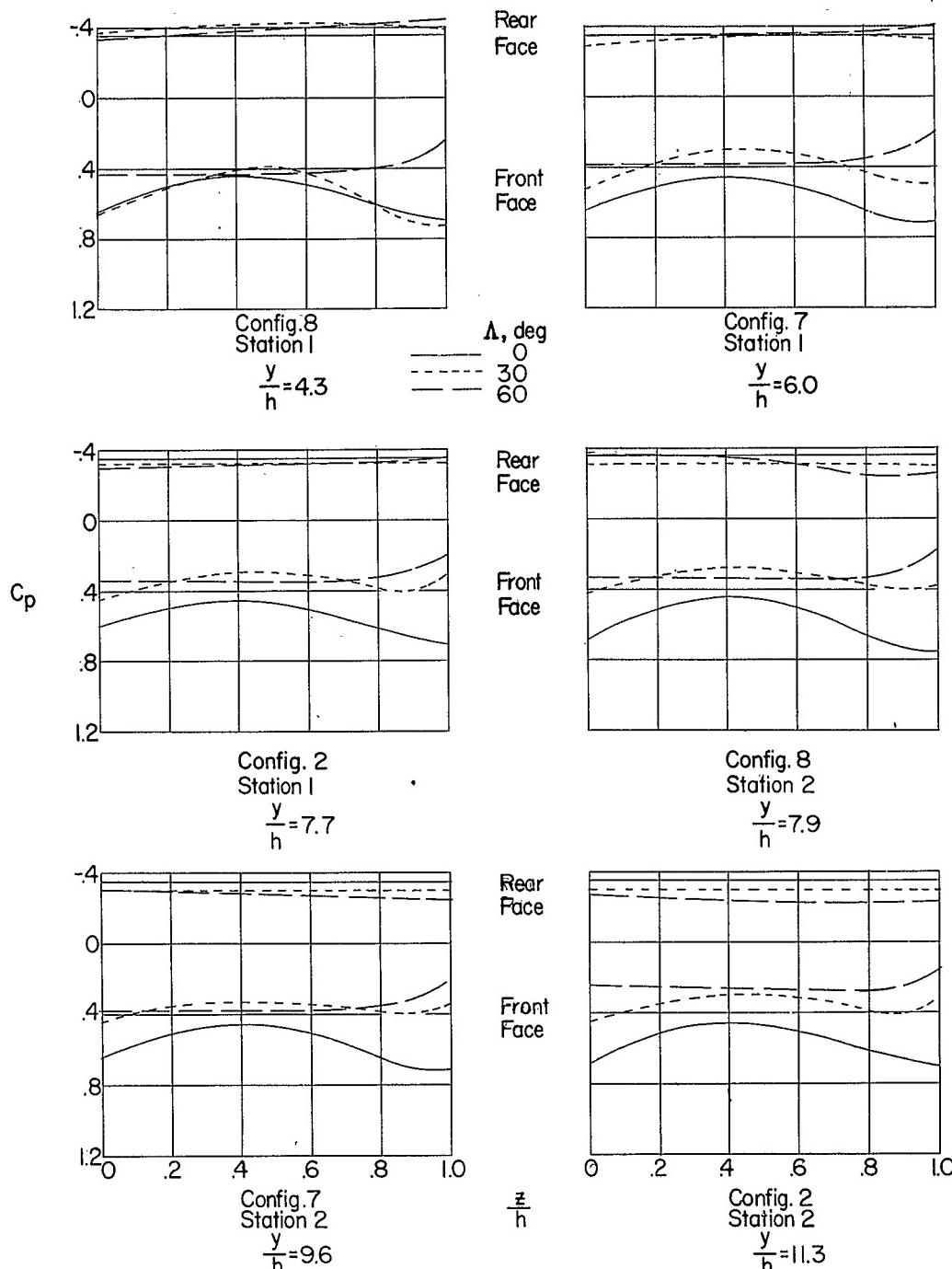
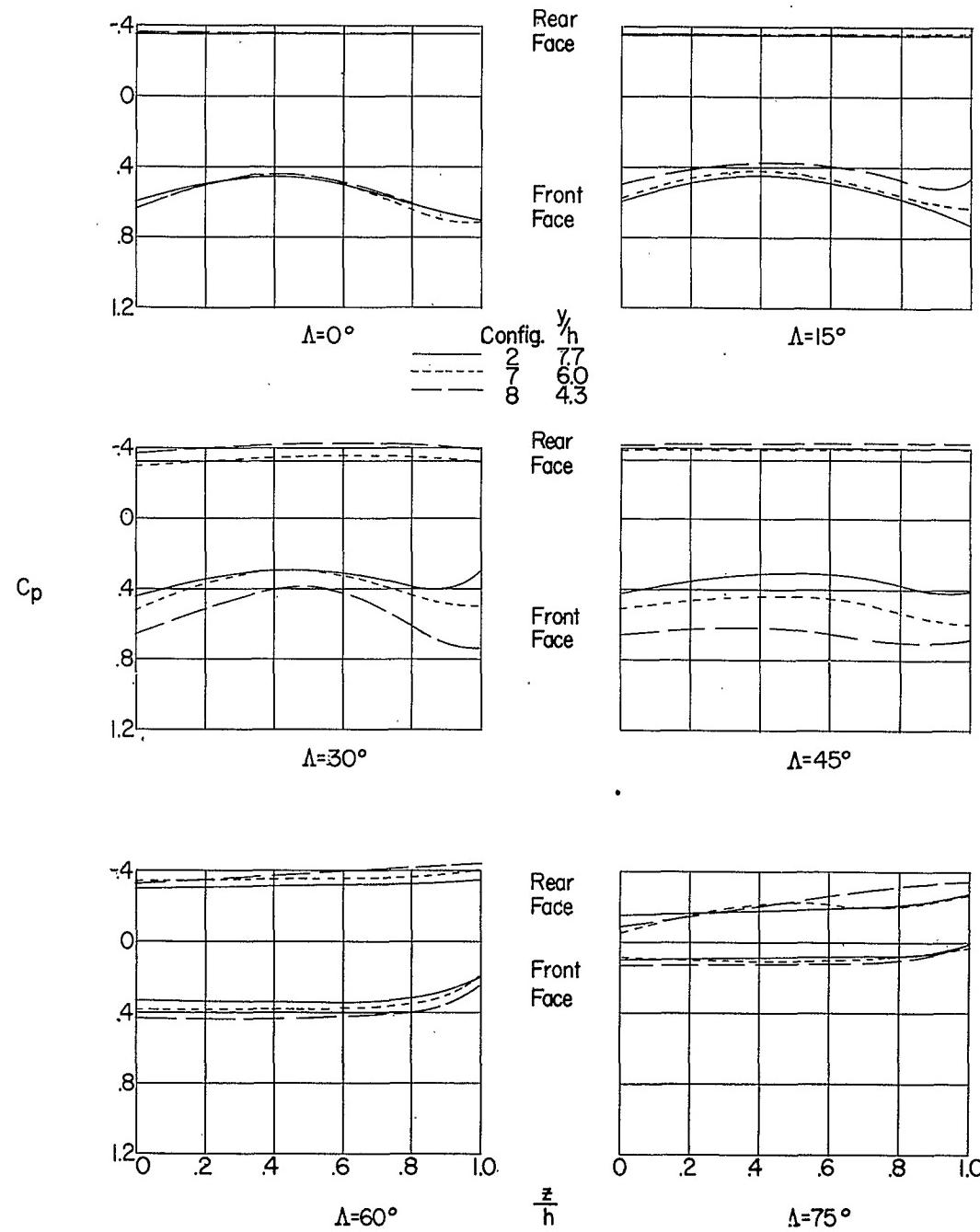
(b) Effect of y/h .

Figure 17.- Concluded.



(a) Effect of tip cutoffs. Station 1.

Figure 17.- Comparison of spoiler-face pressure distributions showing spanwise effects. $M = 1.61$; $R = 0.30 \times 10^6$.

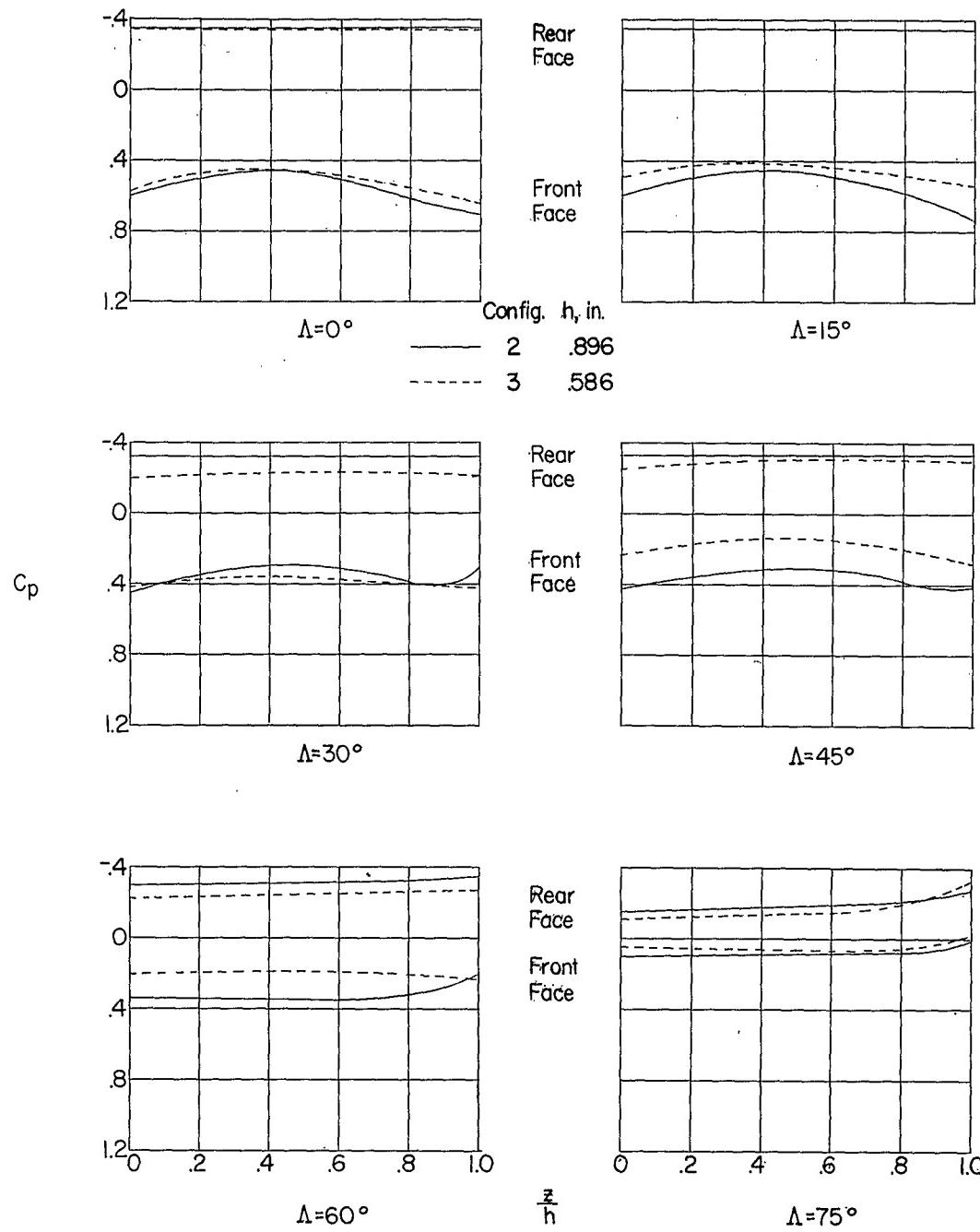
(a) $M = 1.61$.

Figure 18.- Comparison of spoiler-face pressure distribution showing effect of spoiler height. Station 1. $R = 0.30 \times 10^6$.

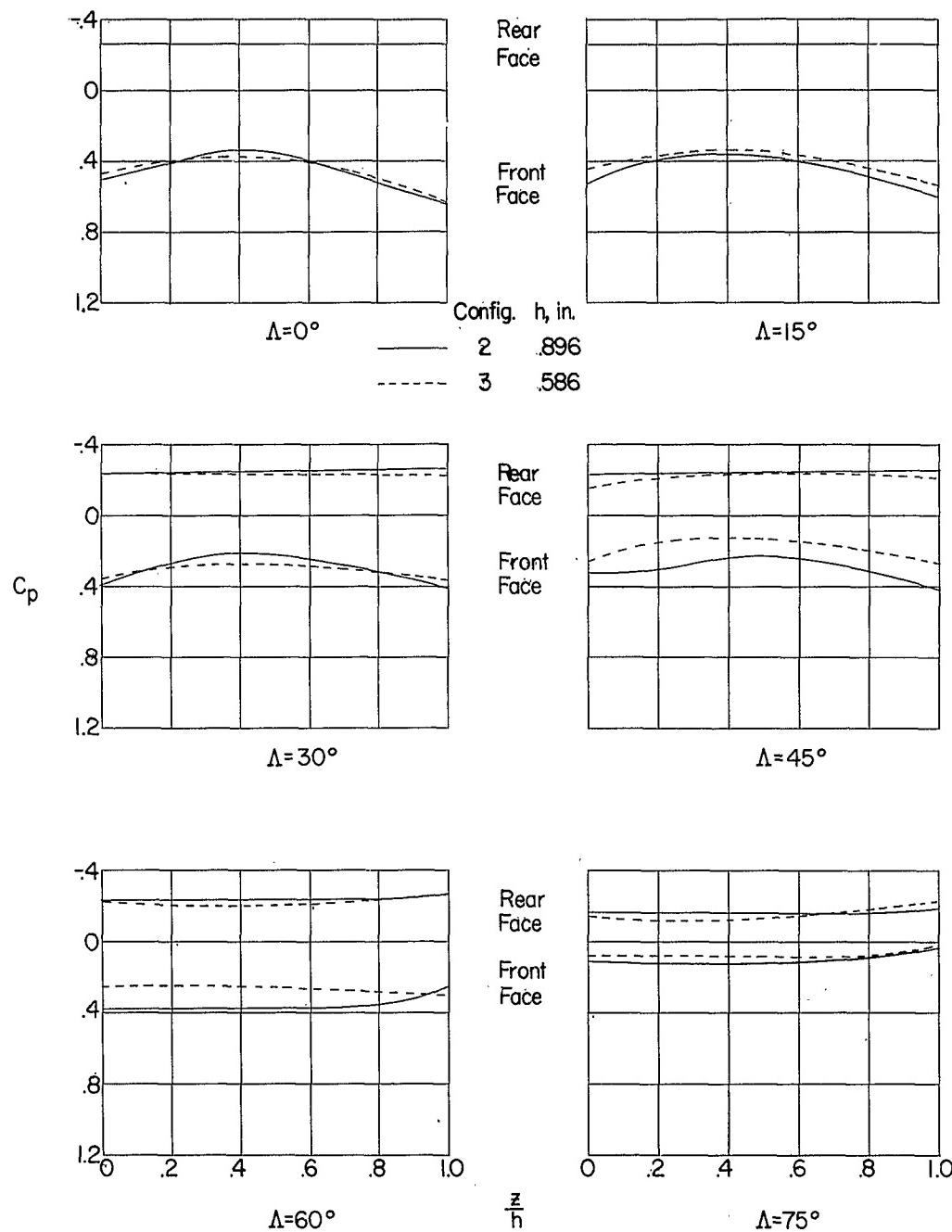
(b) $M = 2.01$.

Figure 18.- Concluded.

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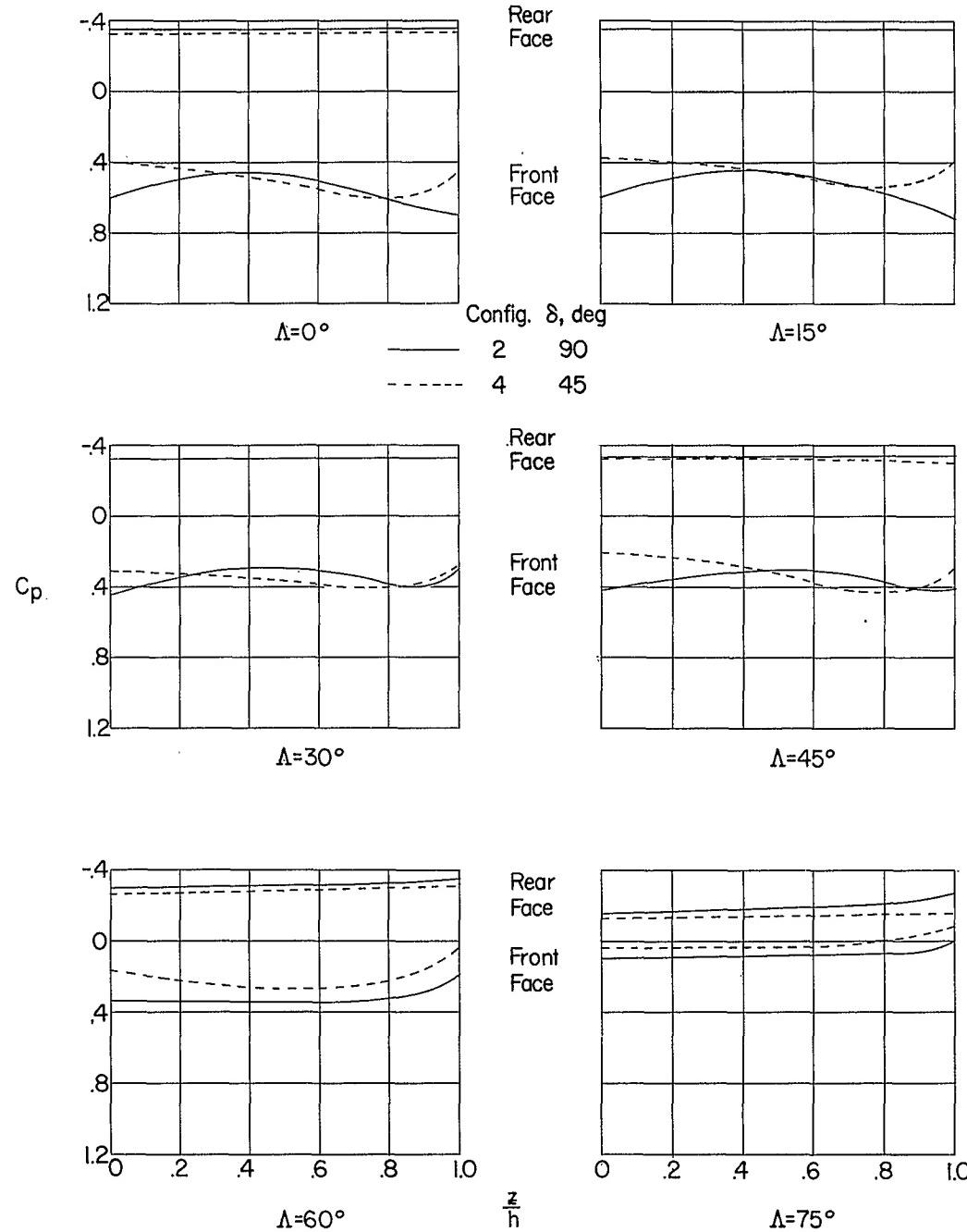
(a) $M = 1.61$.

Figure 19.- Comparison of spoiler-face pressure distributions showing effect of spoiler deflection angle. Station 1. $R = 0.30 \times 10^6$.

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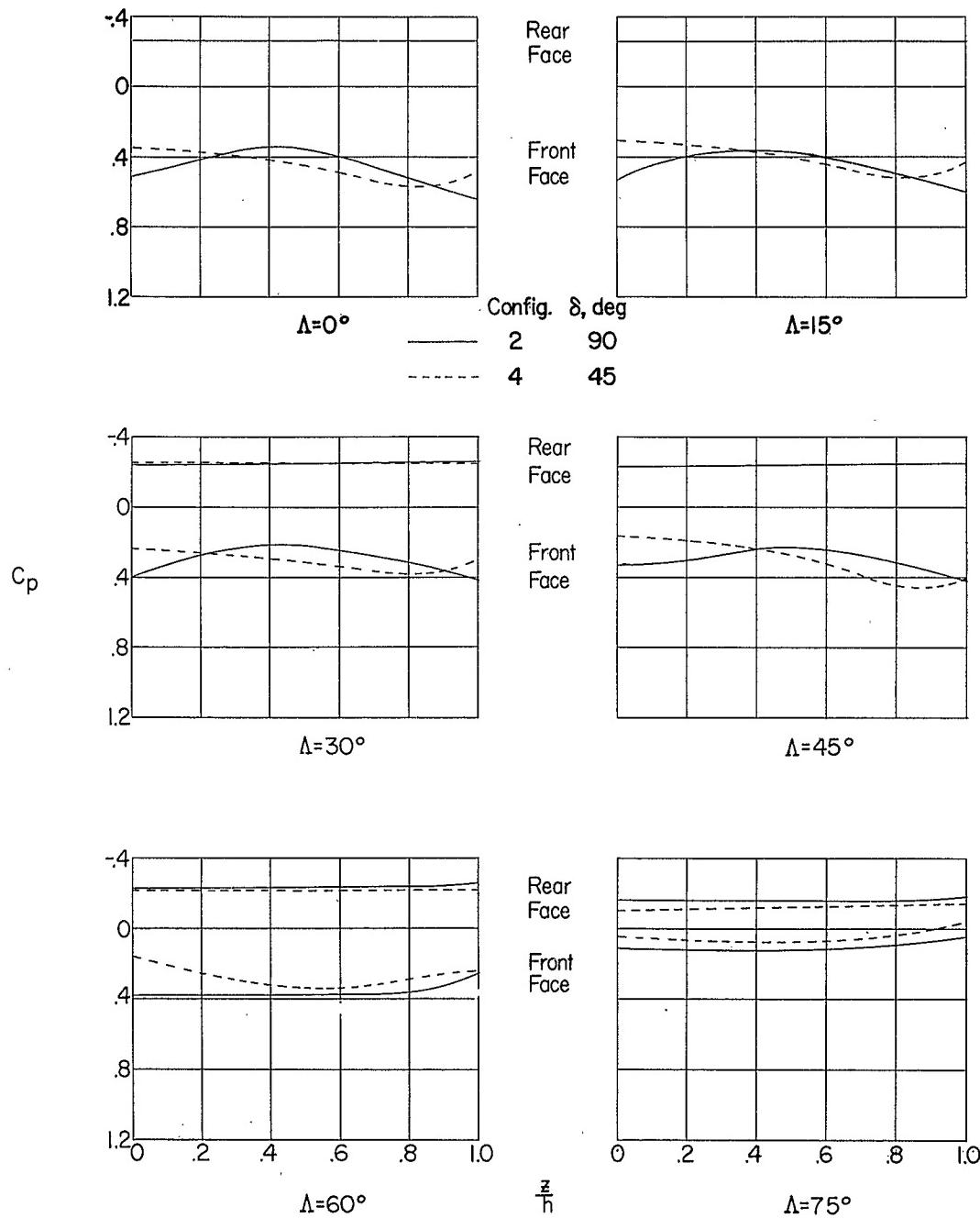
(b) $M = 2.01$.

Figure 19.- Concluded.

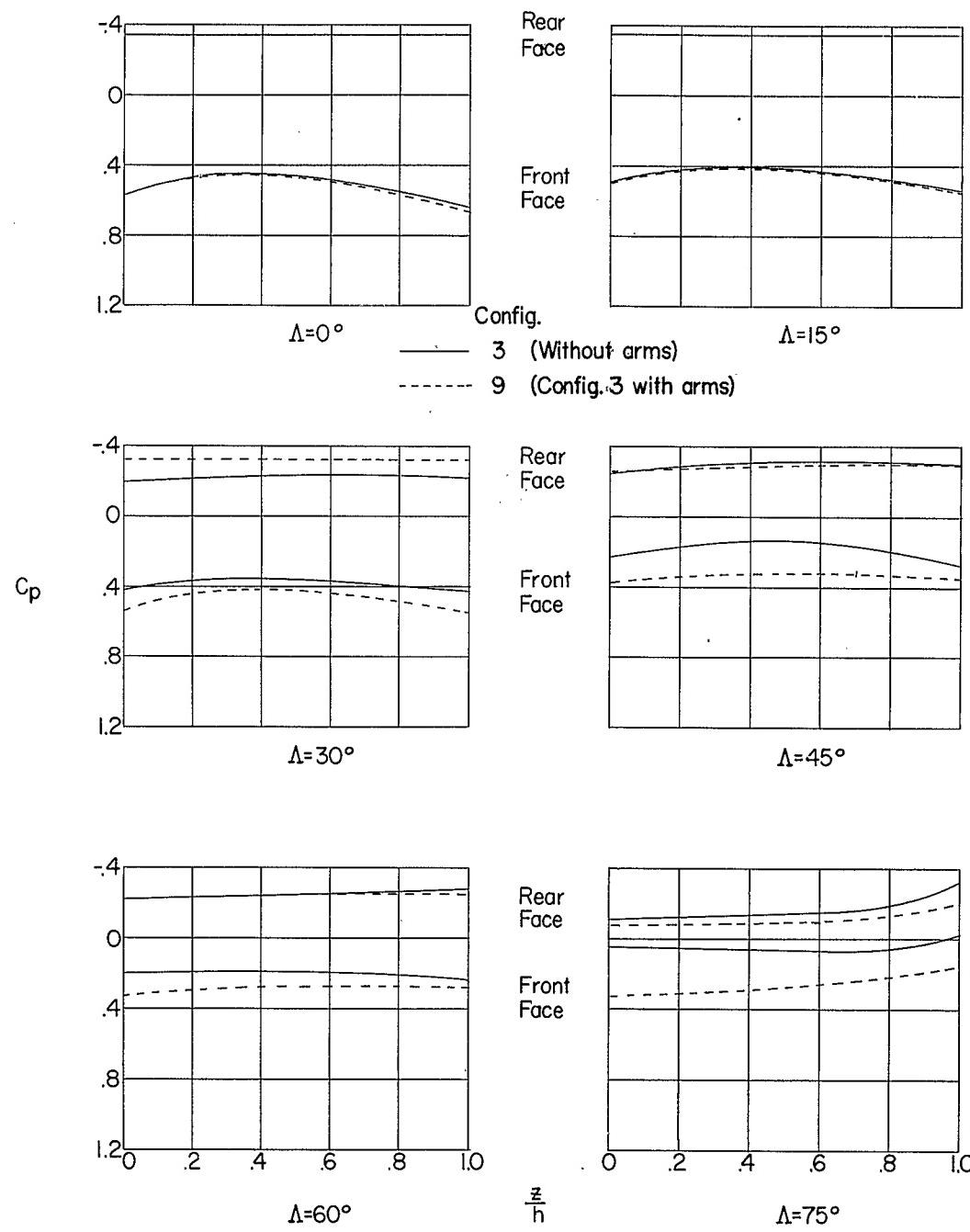


Figure 20.- Comparison of spoiler-face pressure distributions showing effect of the simulated actuator arms. Station 1. $M = 1.61$; $R = 0.30 \times 10^6$.

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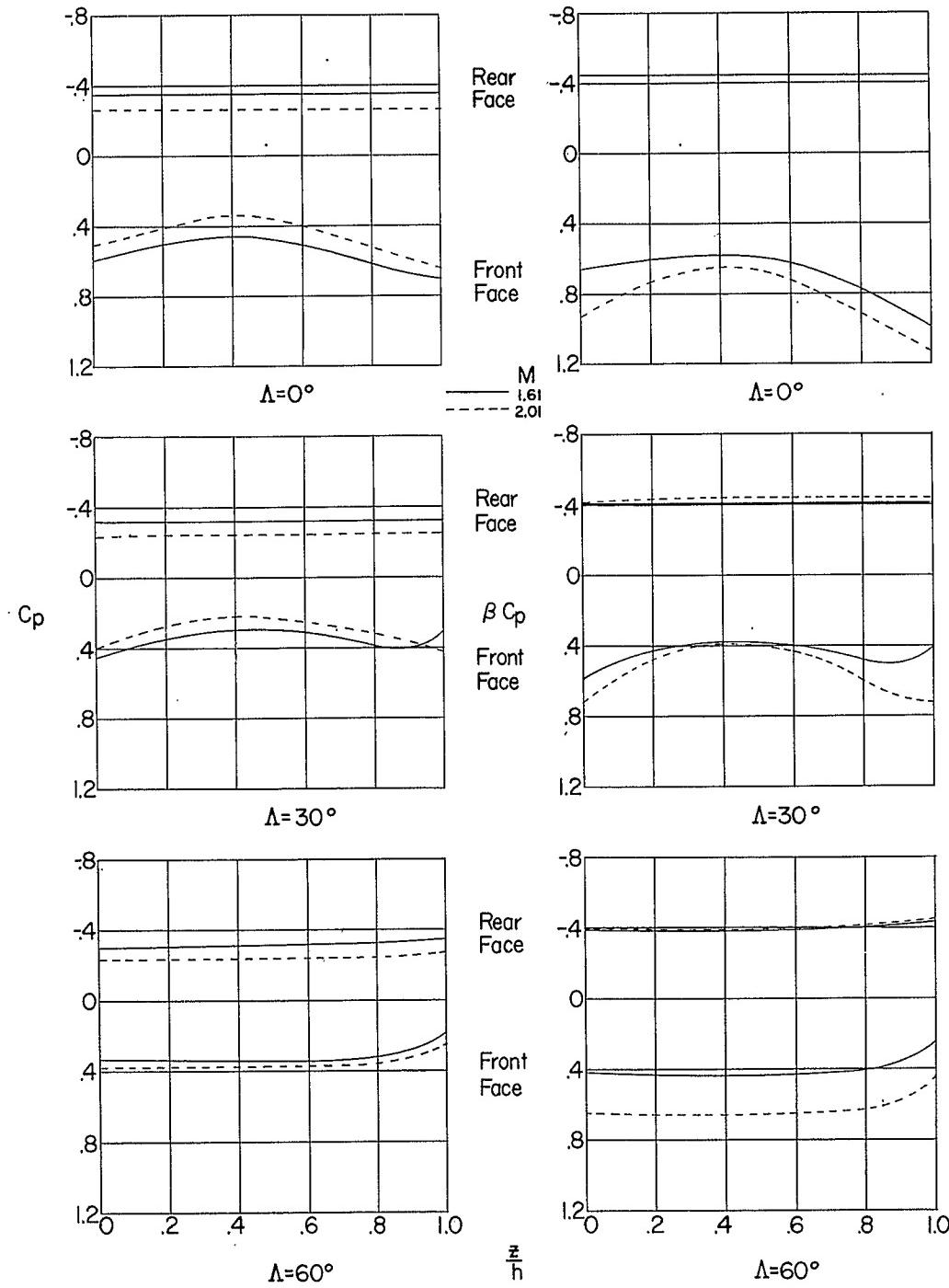


Figure 21.- Effect of Mach number on the spoiler-face pressure distributions for configuration 2 and correlation of same with β relationship. Station 1. $R = 0.30 \times 10^6$.

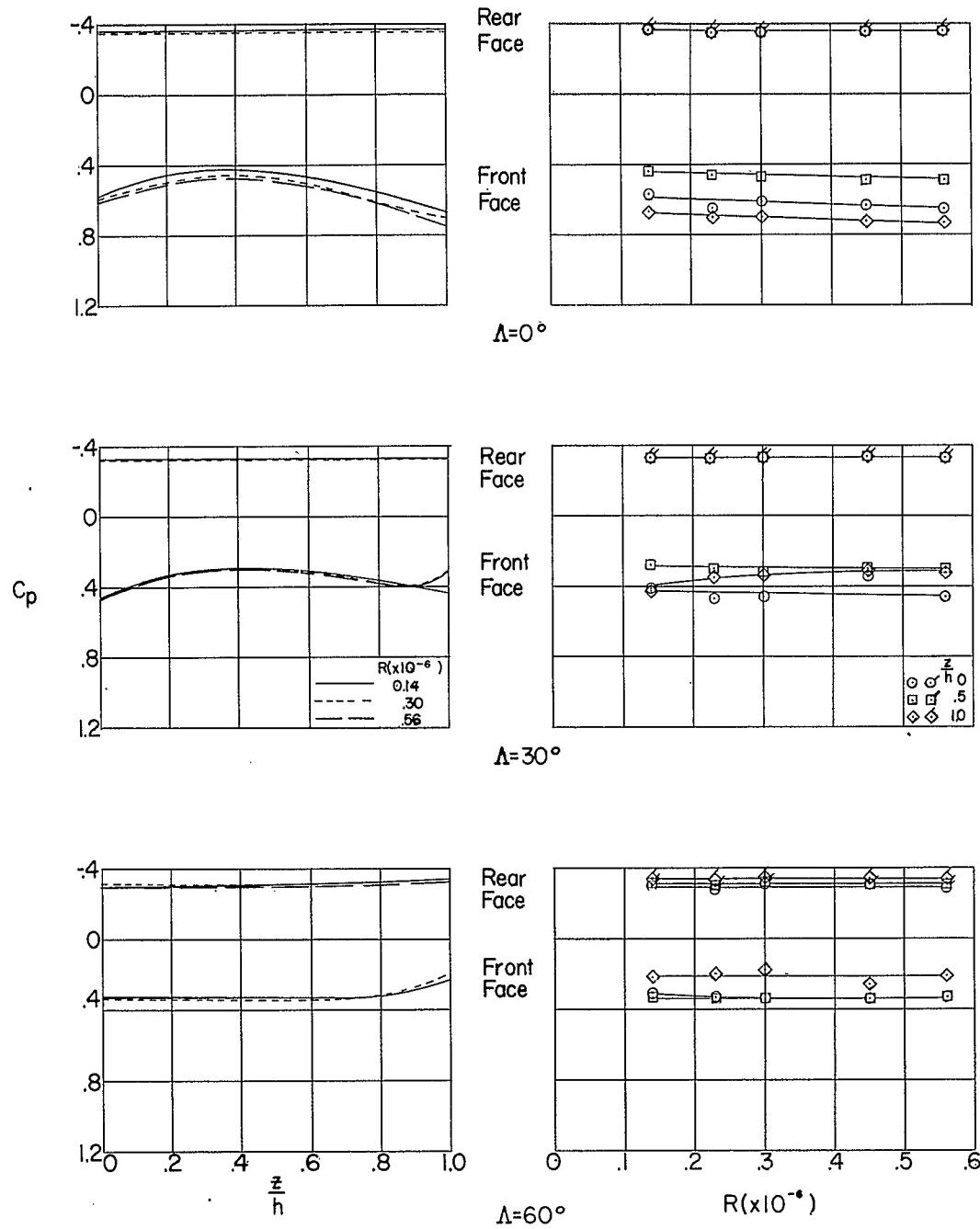


Figure 22.- Effect of Reynolds number on spoiler-face pressure distributions for configuration 2. Station 1. $M = 1.61$.

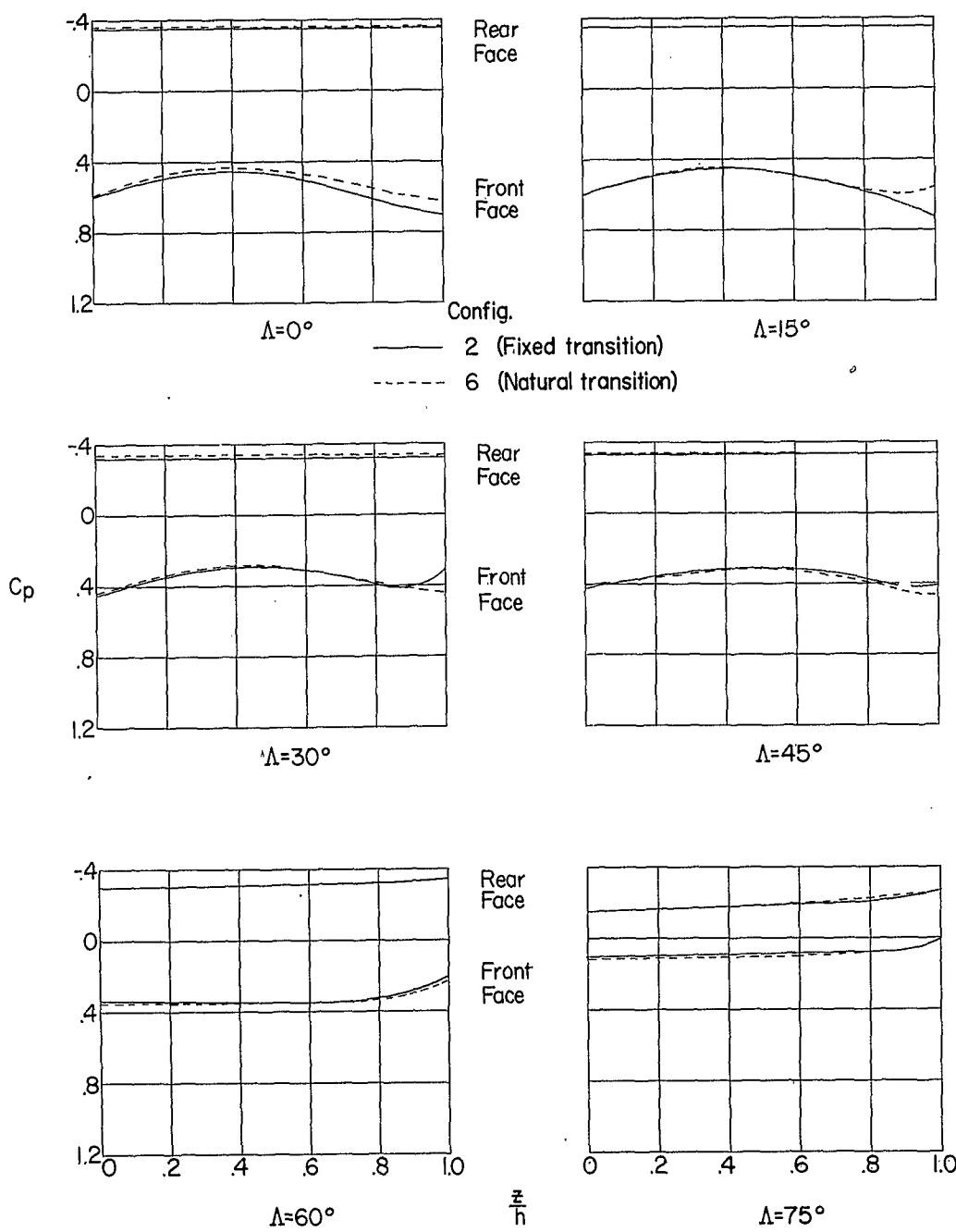
(a) $R = 0.30 \times 10^6$. Station 1.

Figure 23.- Effect of fixing transition on spoiler-face pressure distributions. $M = 1.61$.

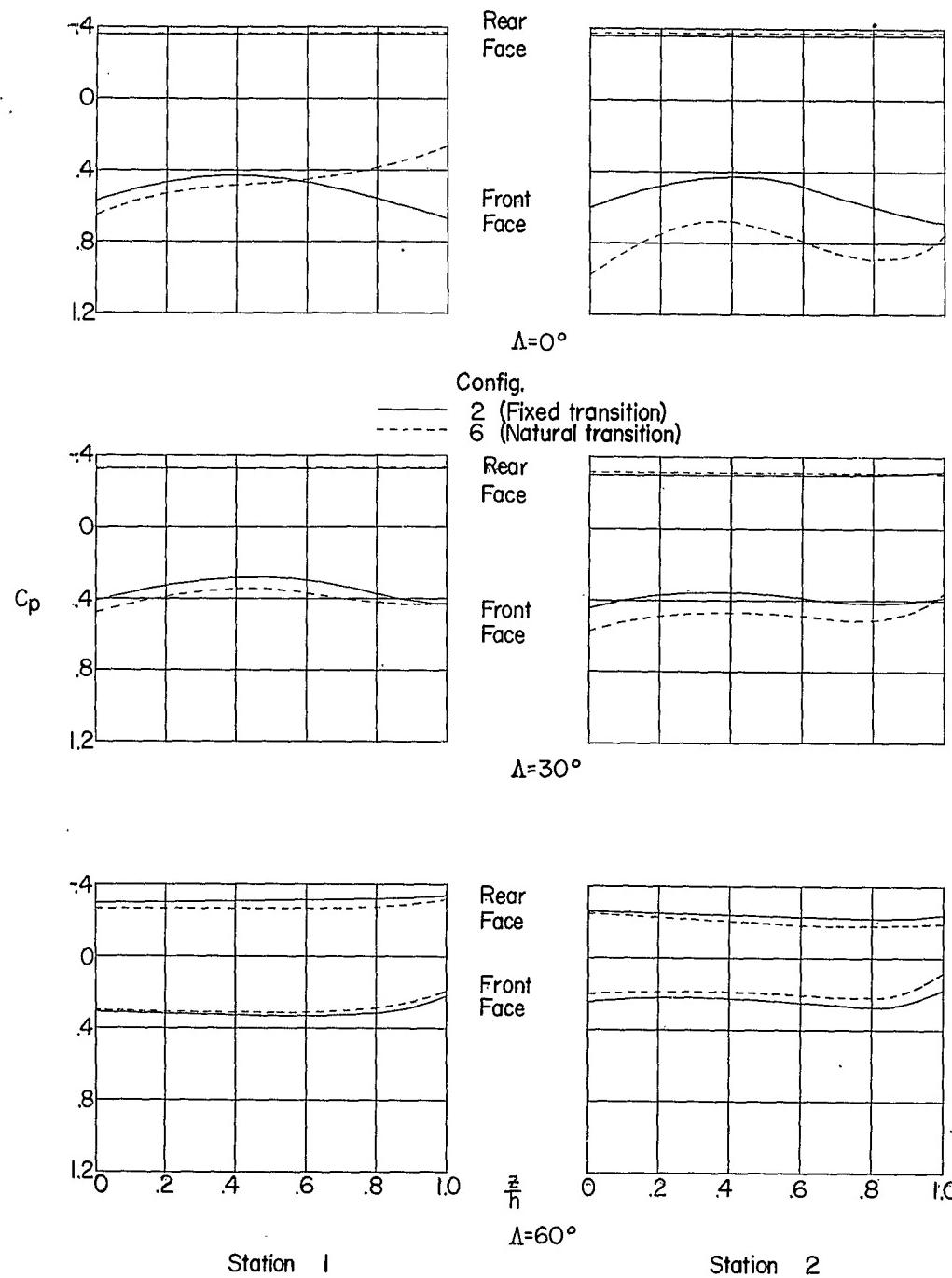
(b) $R = 0.14 \times 10^6$.

Figure 23.- Concluded.

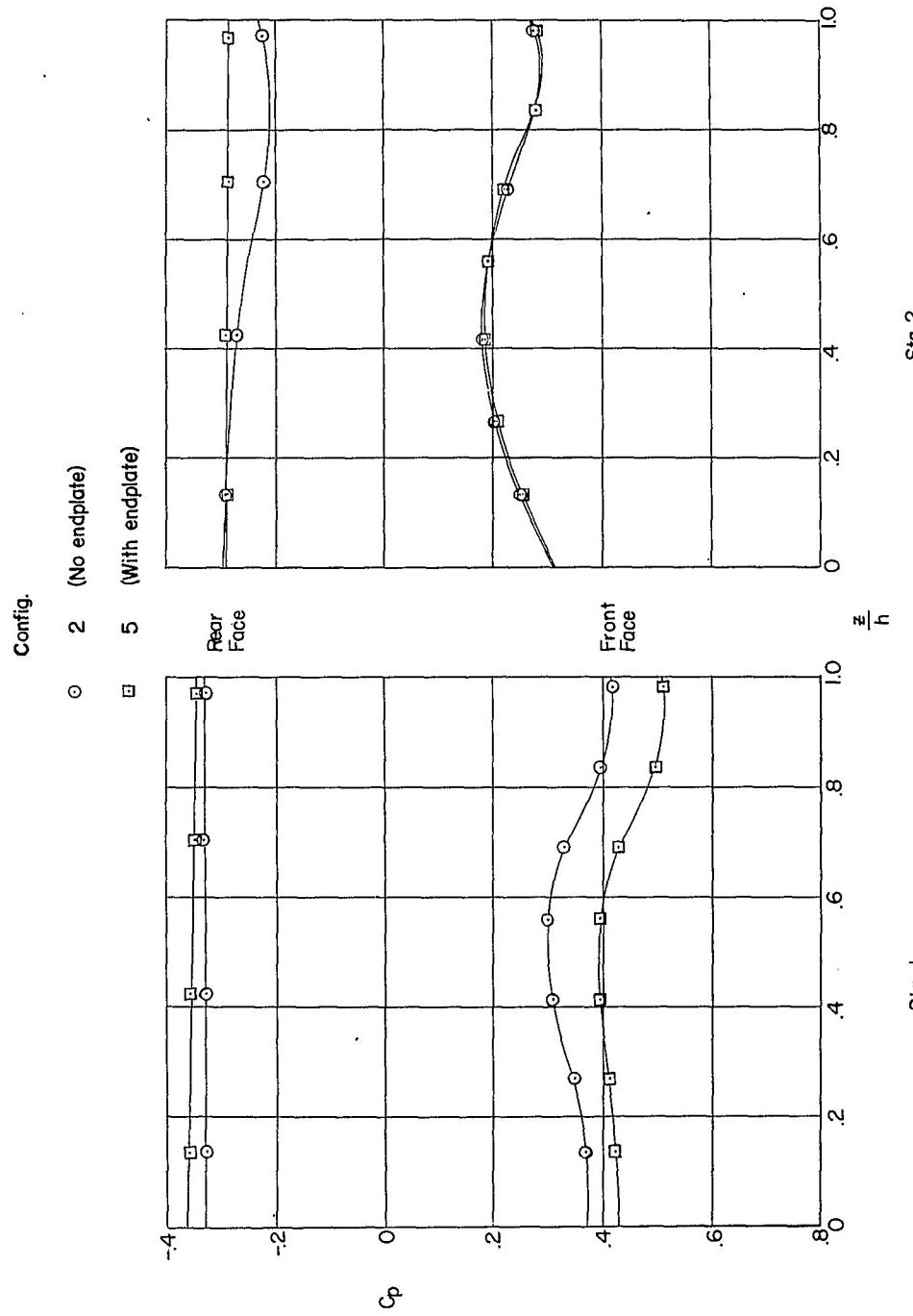


Figure 24.- Effect of endplate on spoiler-face pressure distributions.
 $M = 1.61$; $R = 0.30 \times 10^6$; $\Lambda = 45^\circ$.

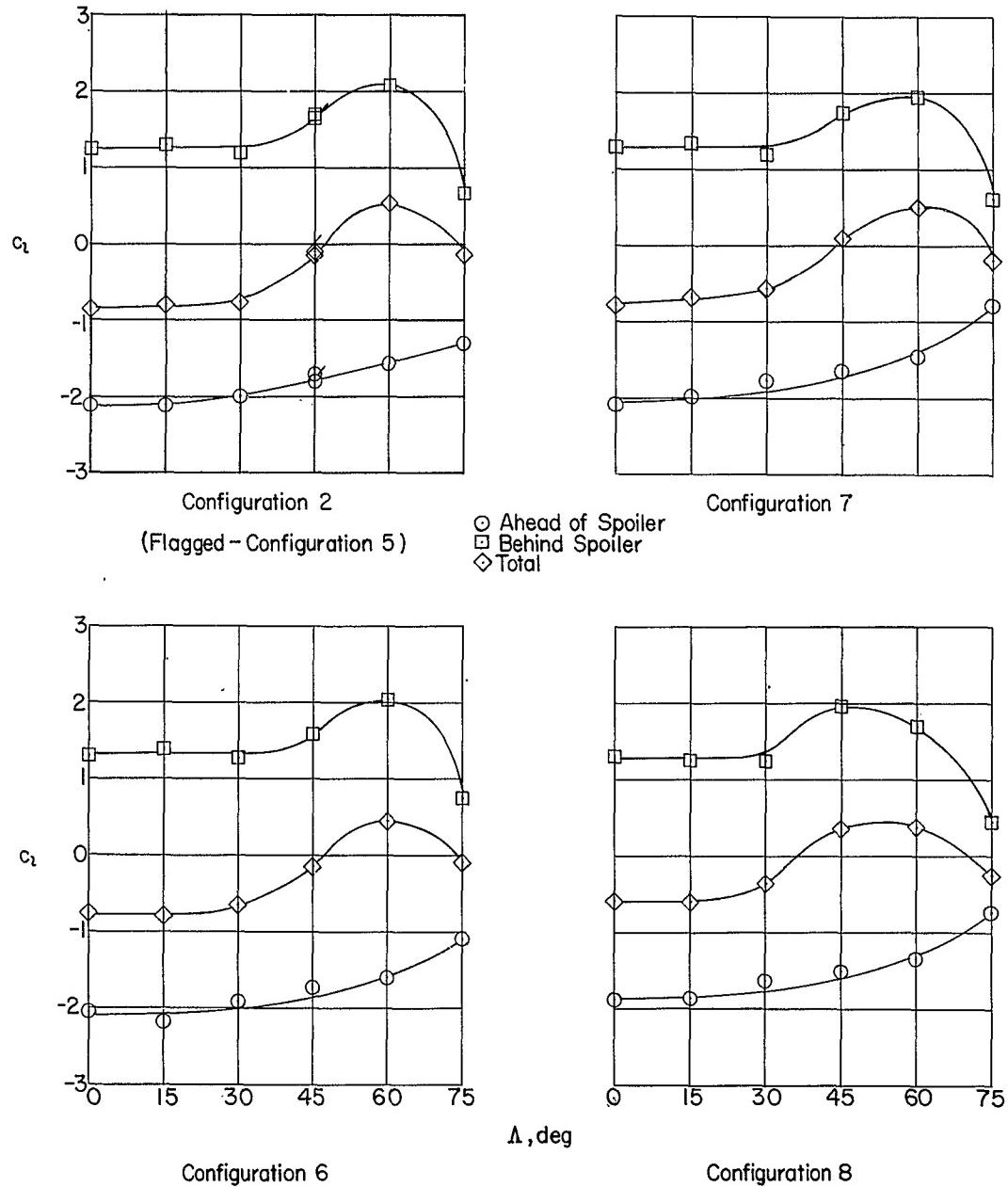
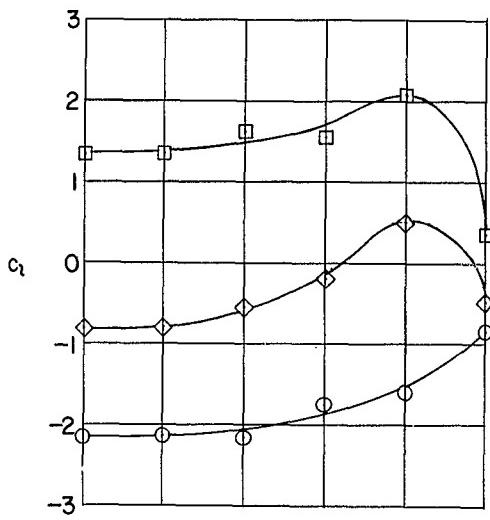
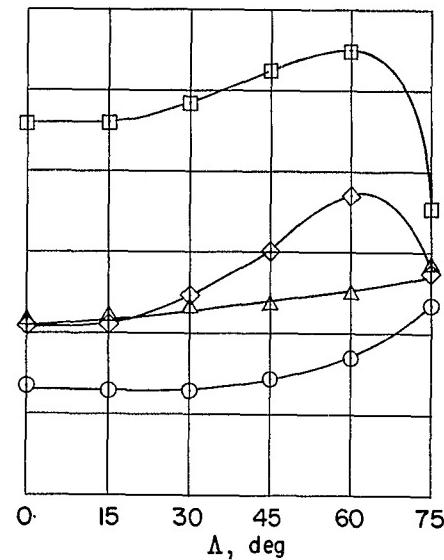
(a) $M = 1.61$.

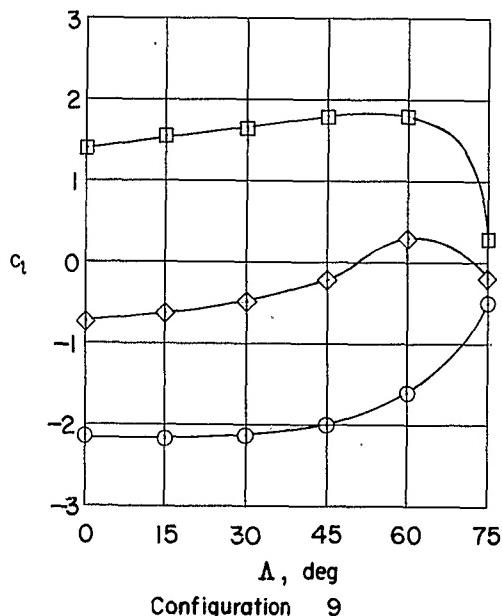
Figure 25.- Basic section lift-coefficient variations with sweep angle.
 $R = 0.30 \times 10^6$.



Configuration 3



Configuration 4

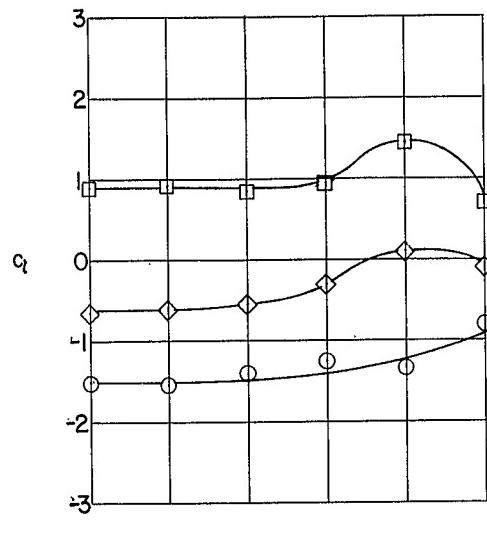


Configuration 9

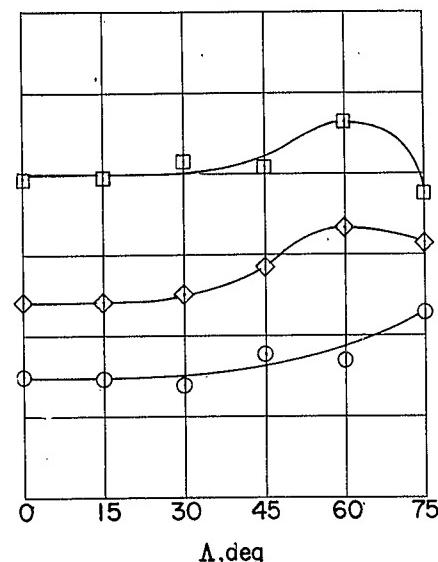
- Ahead of spoiler
- Behind spoiler
- △ Spoiler (configuration 4 only)
- ◇ Total

(b) $M = 1.61$.

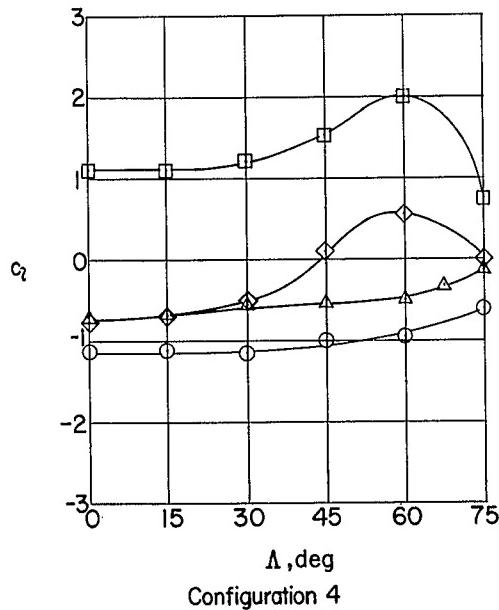
Figure 25.- Continued.



Configuration 2



Configuration 3



Configuration 4

- Ahead of spoiler
- Behind spoiler
- △ Spoiler (Configuration 4 only)
- ◇ Total

(c) $M = 2.01$.

Figure 25.- Concluded.

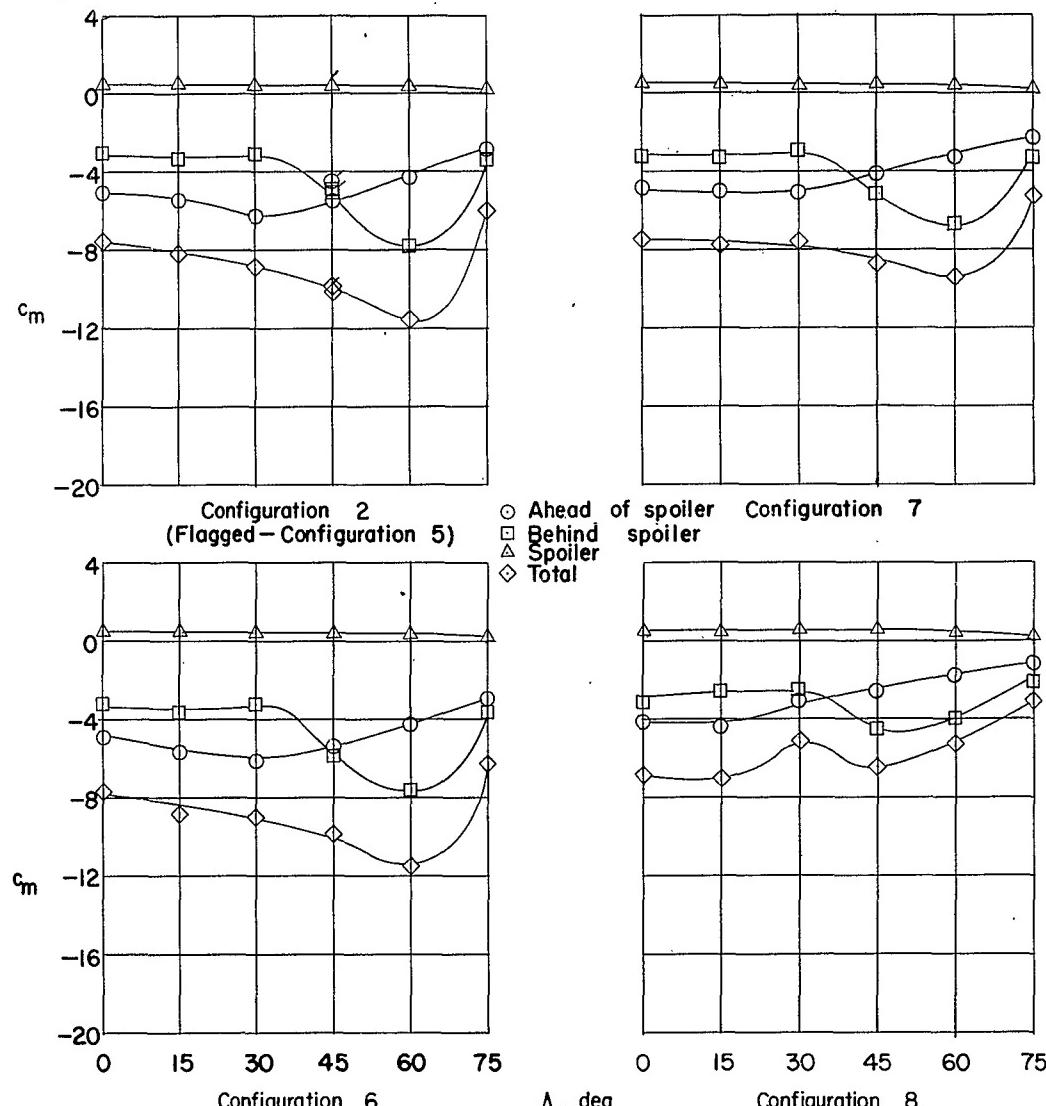
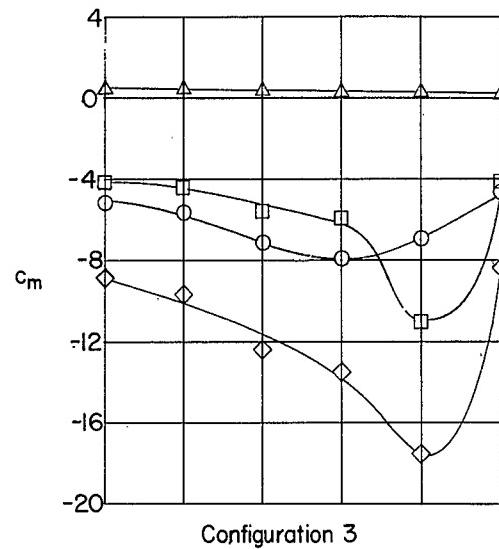
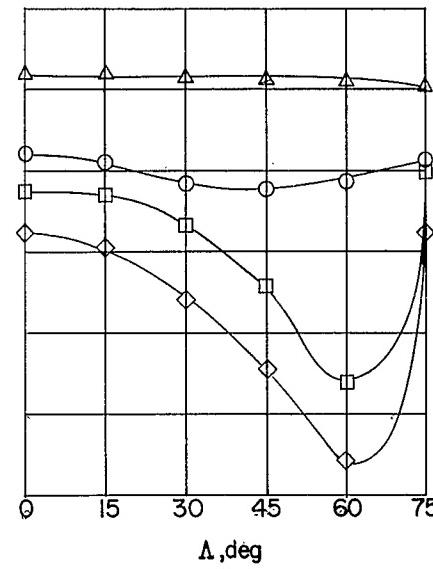
(a) $M = 1.61$.

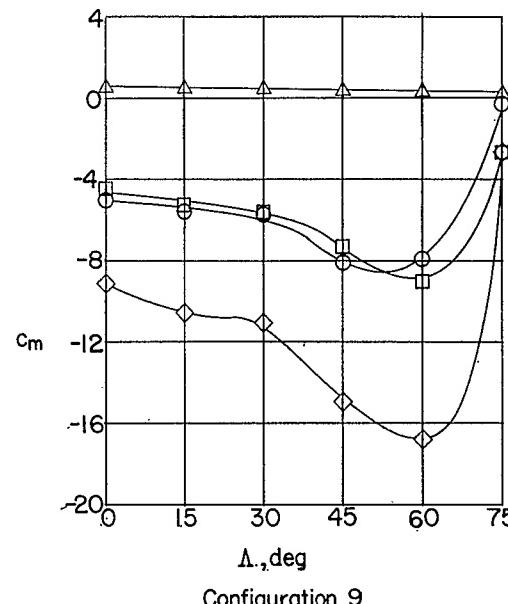
Figure 26.- Basic section pitching-moment-coefficient variations with sweep angle. $R = 0.30 \times 10^6$.



Configuration 3



Configuration 4

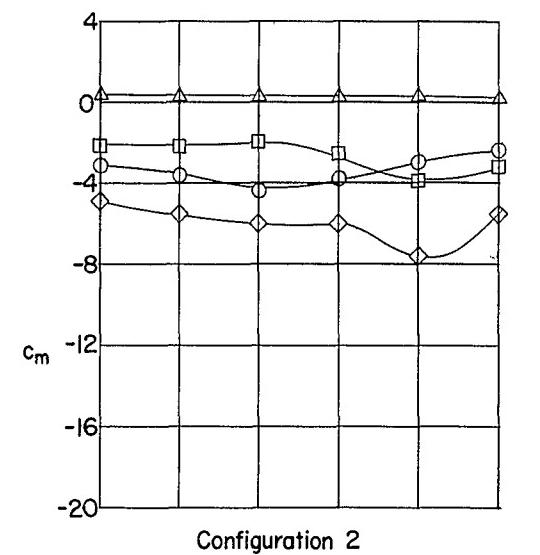


Configuration 9

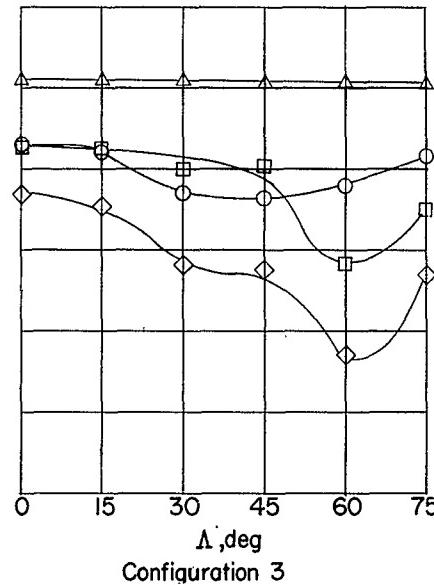
- Ahead of spoiler
- Behind spoiler
- △ Spoiler
- ◇ Total

(b) $M = 1.61$.

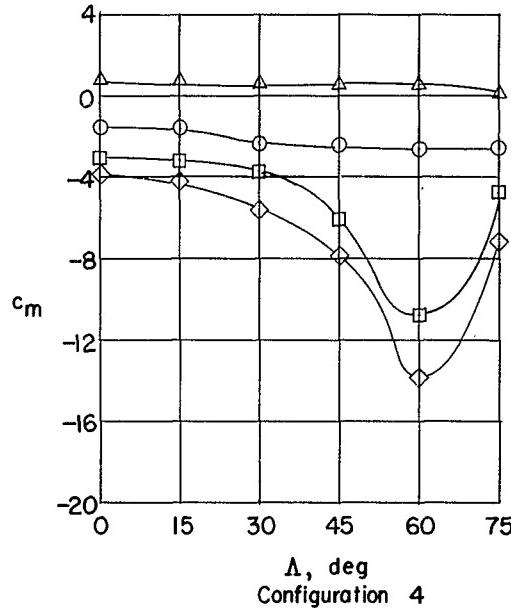
Figure 26.-- Continued.



Configuration 2



Configuration 3

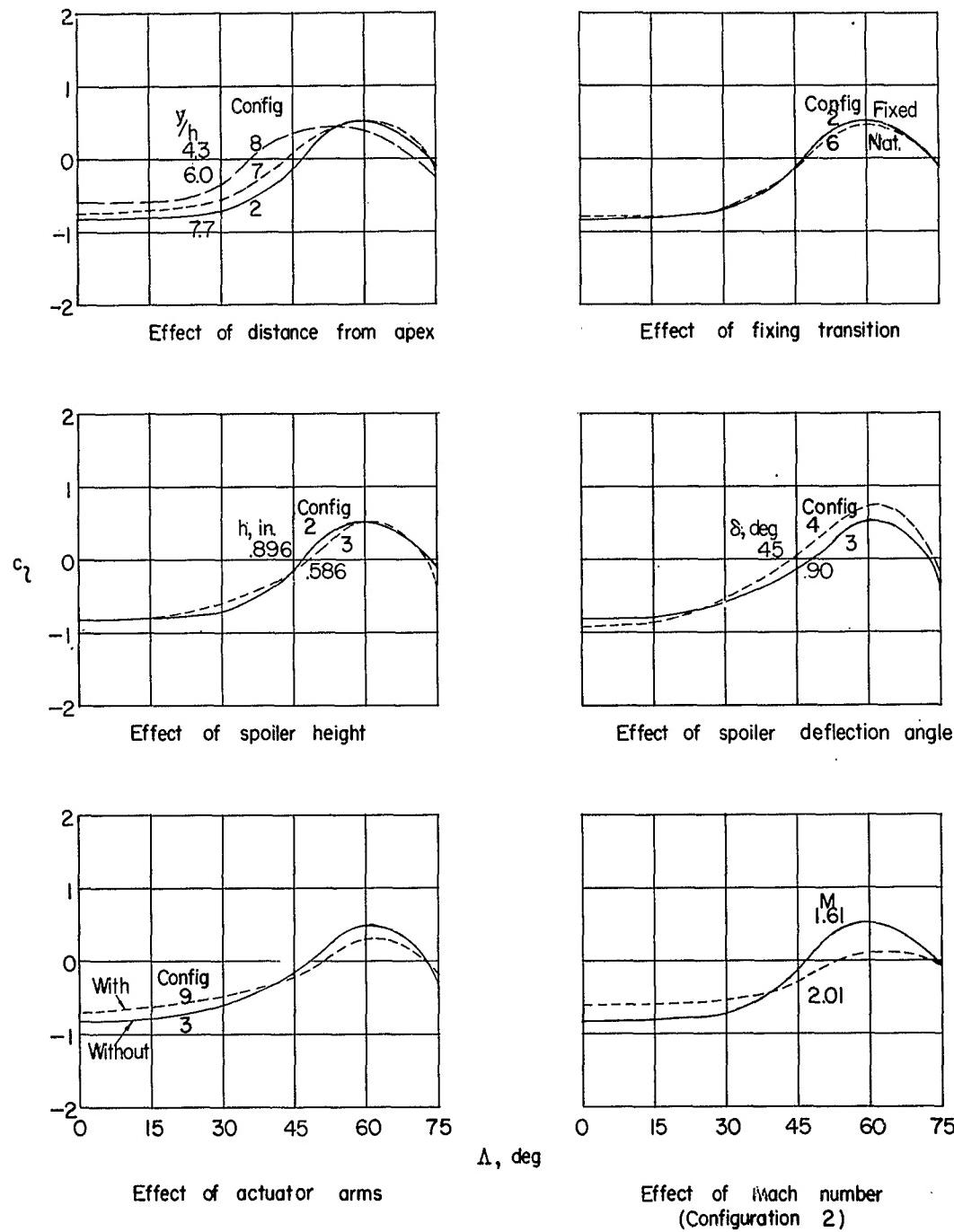


Configuration 4

- Ahead of spoiler
- Behind spoiler
- △ Spoiler
- ◇ Total

(c) $M = 2.01$.

Figure 26.- Concluded.

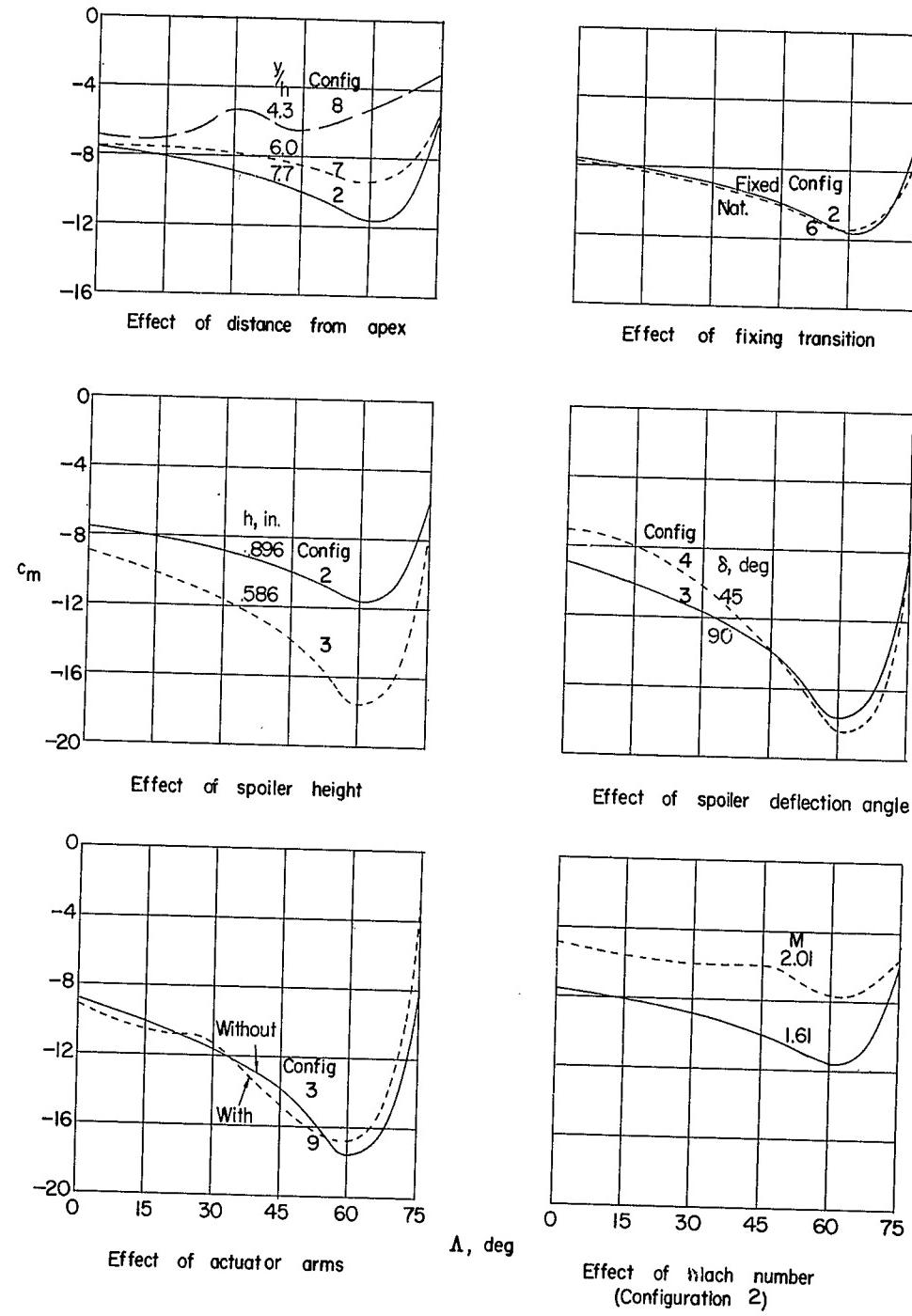


(a) Lift coefficient.

Figure 27.- Effect of various configuration and Mach number changes on the total lift- and pitching-moment-coefficient variations. $R = 0.30 \times 10^6$; $M = 1.61$ except as noted.

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(b) Pitching-moment coefficient.

Figure 27.- Concluded.

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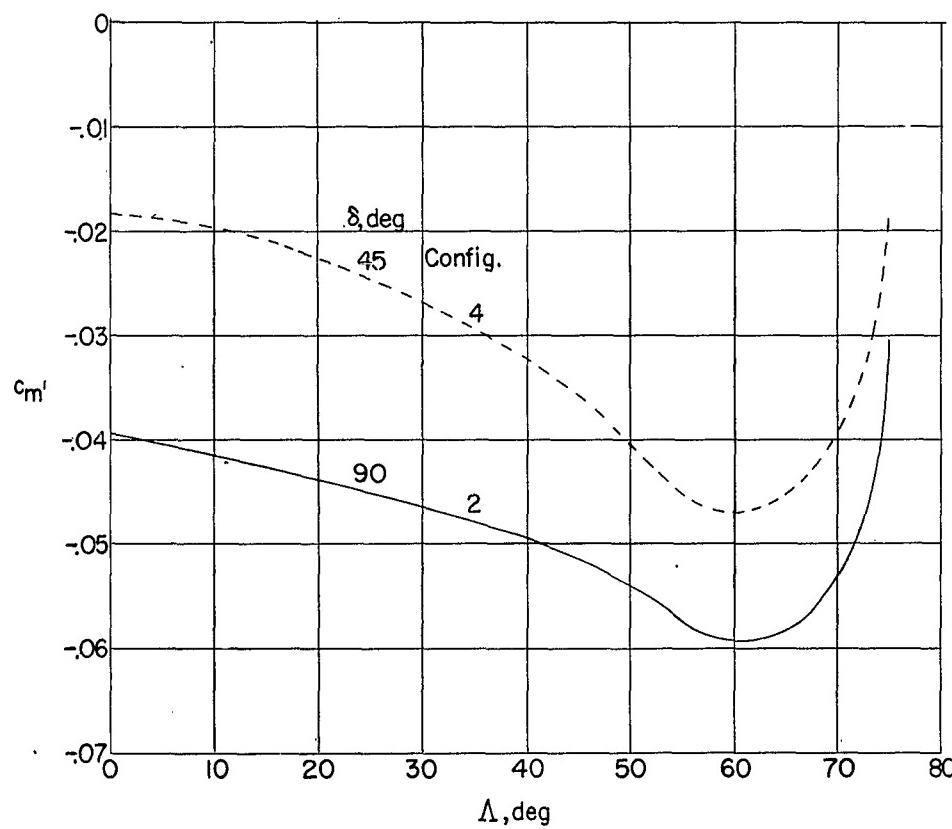
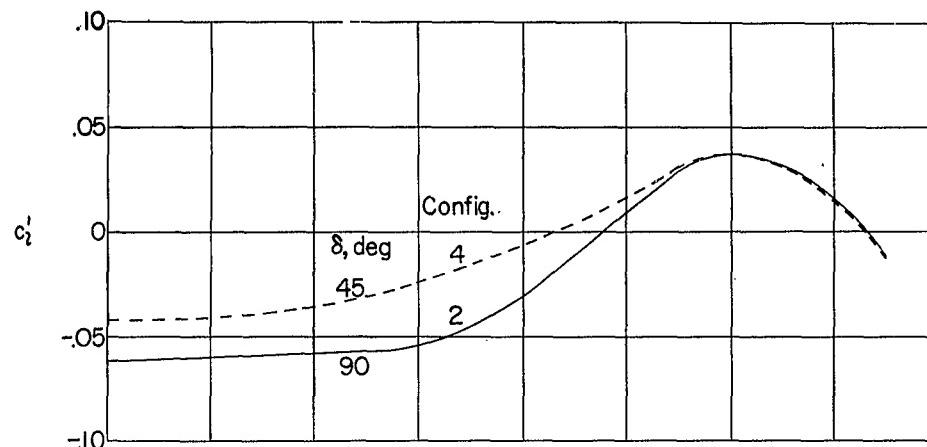


Figure 28.- Effect of spoiler deflection angle on total lift- and pitching-moment-coefficient variations with sweep angle for a hypothetical flat-plate wing. $M = 1.61$; $R = 0.30 \times 10^6$.

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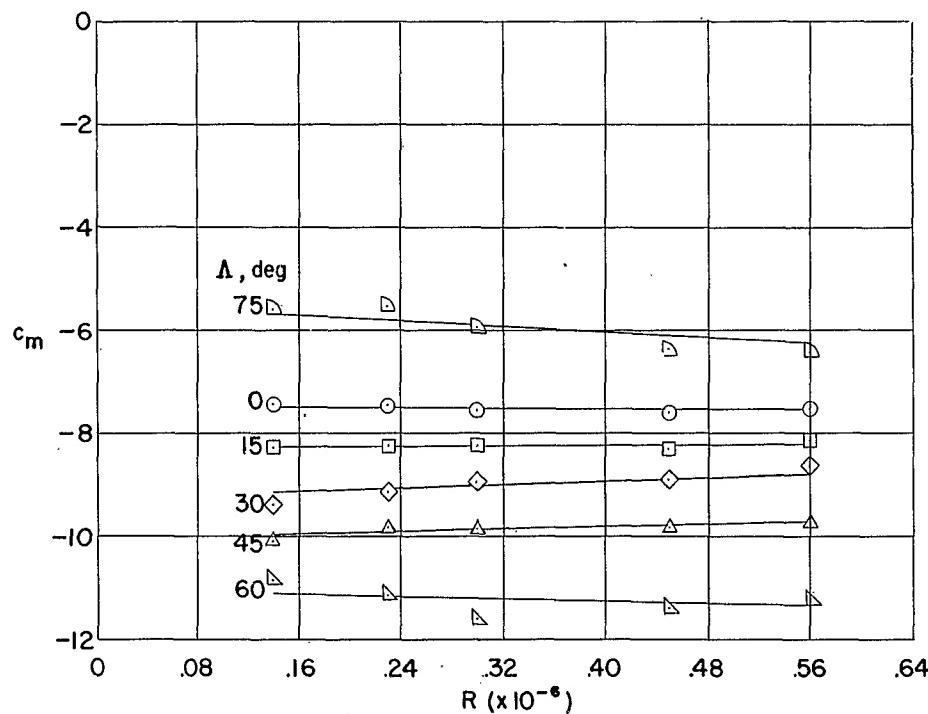
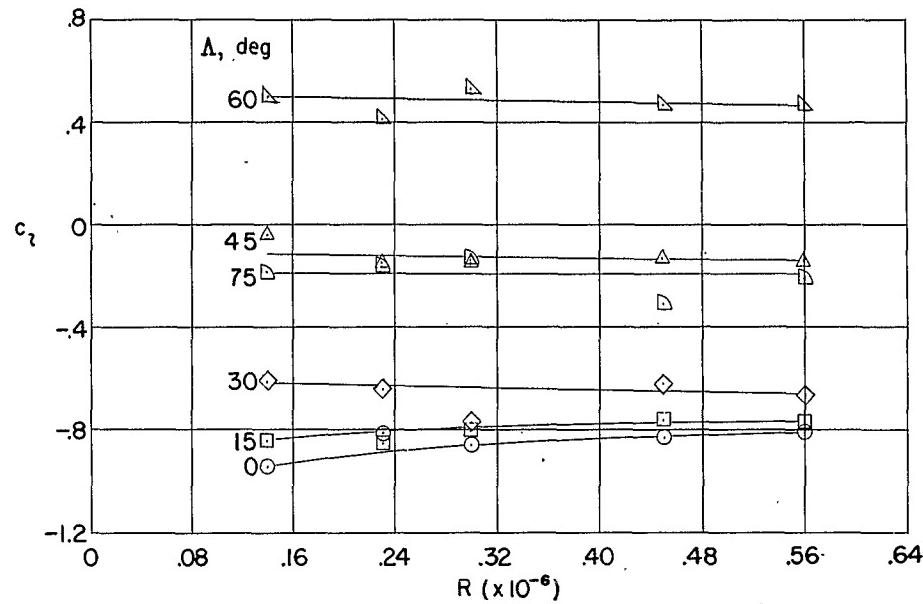


Figure 29.- Effect of Reynolds number on total lift- and pitching-moment coefficients for configuration 2. $M = 1.61$.

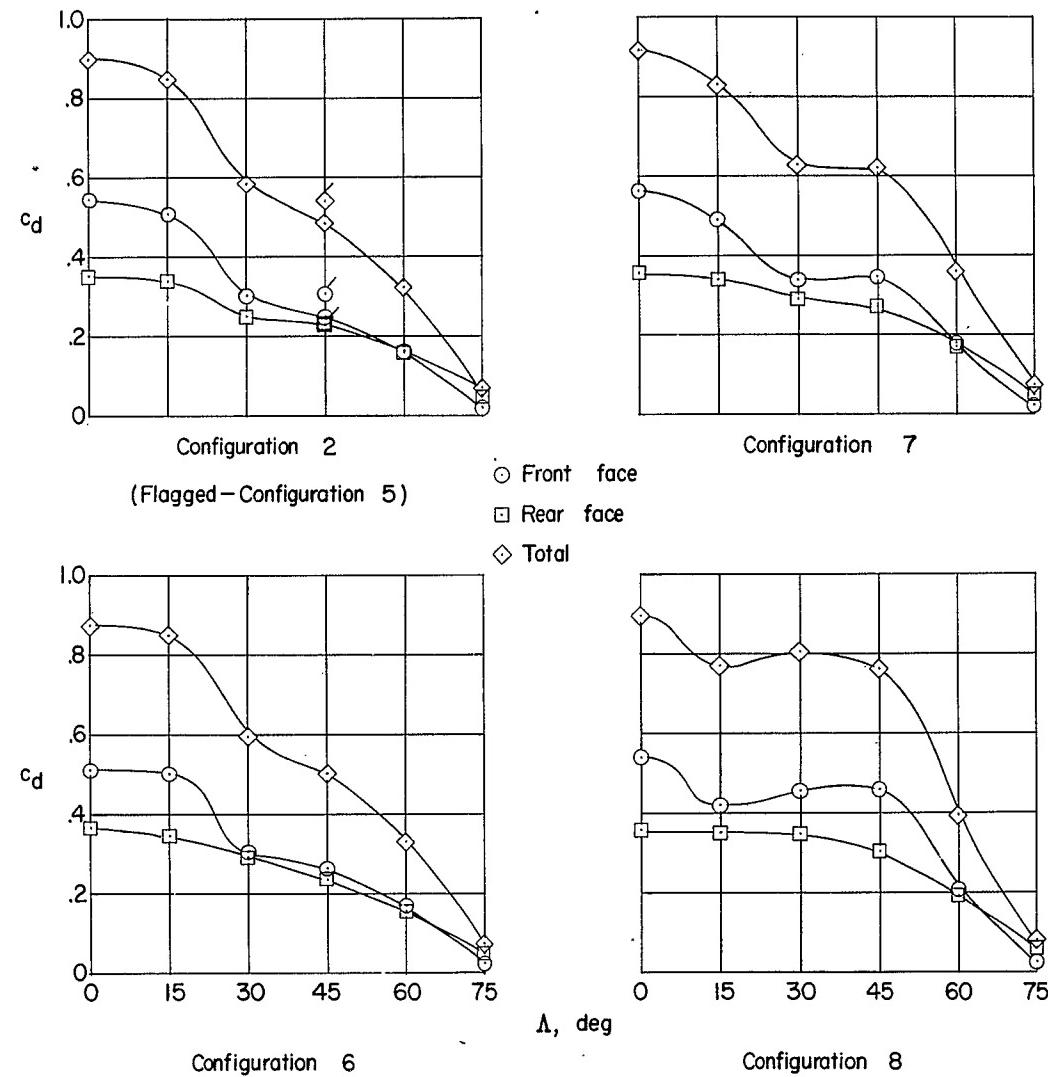
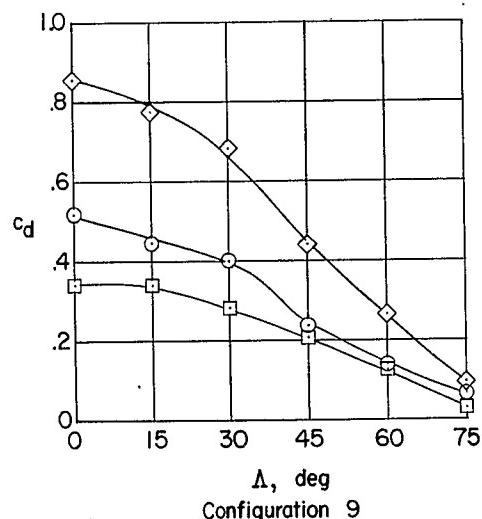
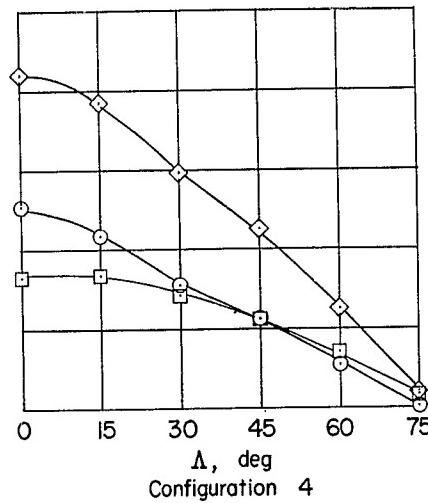
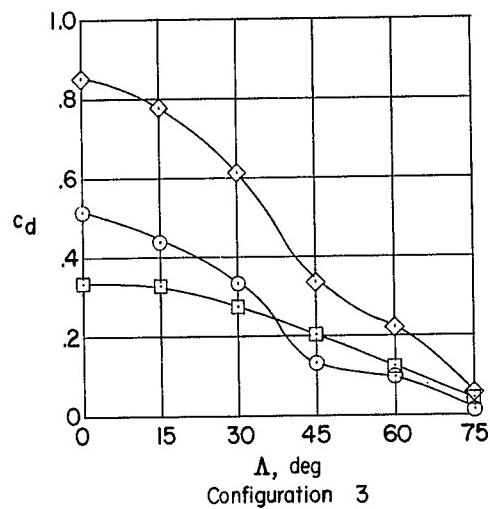
(a) $M = 1.61.$

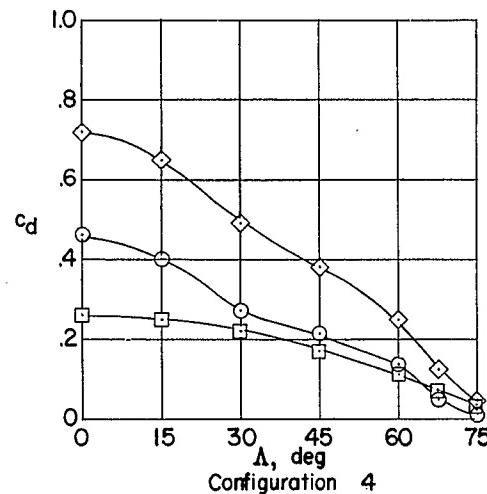
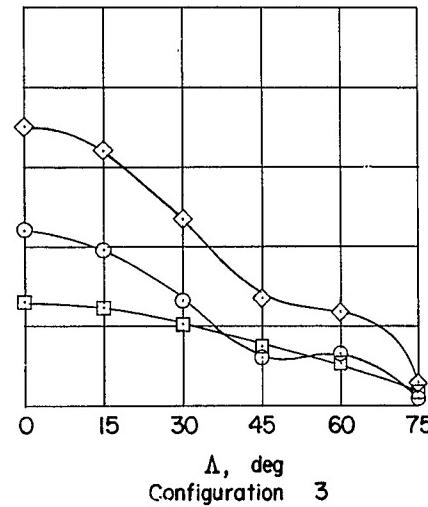
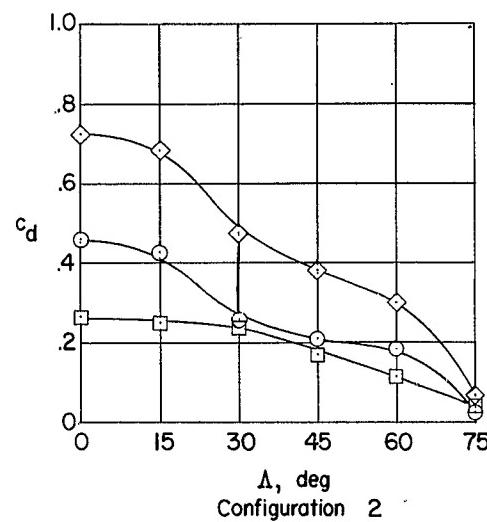
Figure 30.- Basic section drag-coefficient variations with sweep angle.
 $R = 0.30 \times 10^6$.



○ Front face
 □ Rear face
 ◇ Total

(b) $M = 1.61$.

Figure 30.- Continued.



- Front face
- Rear face
- ◇ Total

(c) $M = 2.01$.

Figure 30.- Concluded.

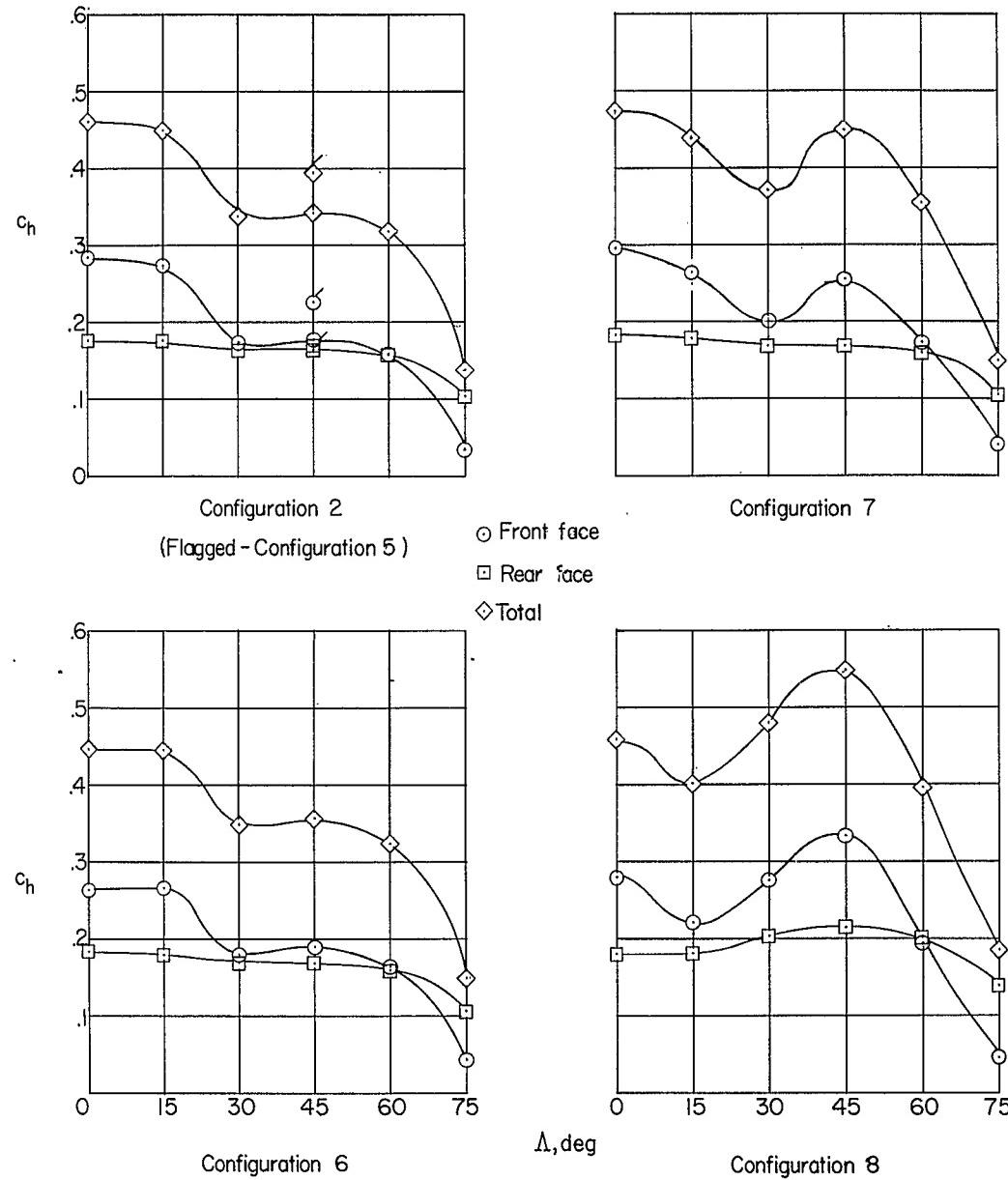
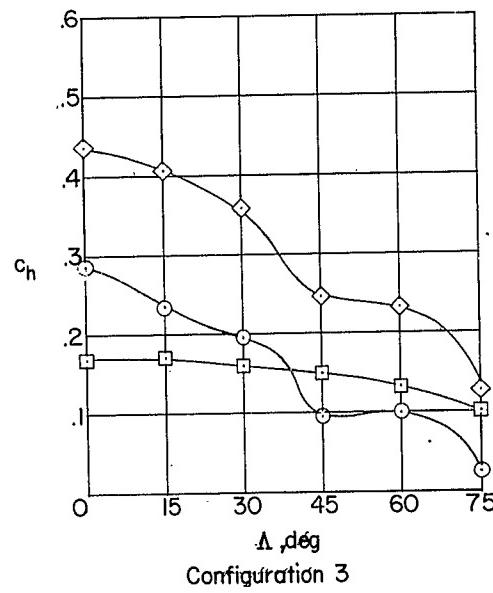
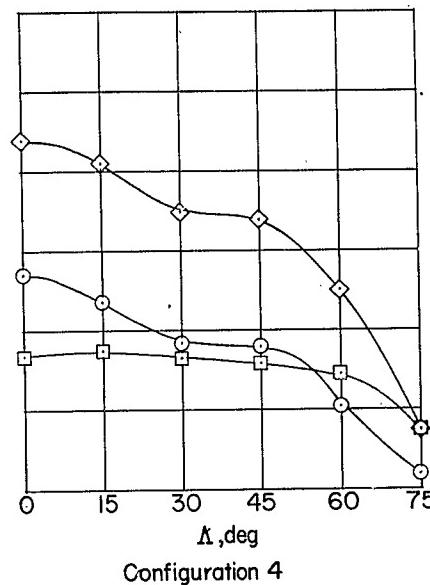
(a) $M = 1.61$.

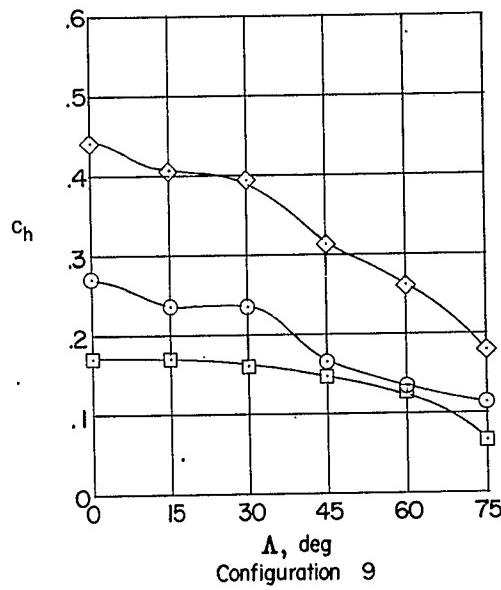
Figure 31.- Basic section hinge-moment-coefficient variations with sweep angle. $R = 0.30 \times 10^6$.



Configuration 3



Configuration 4

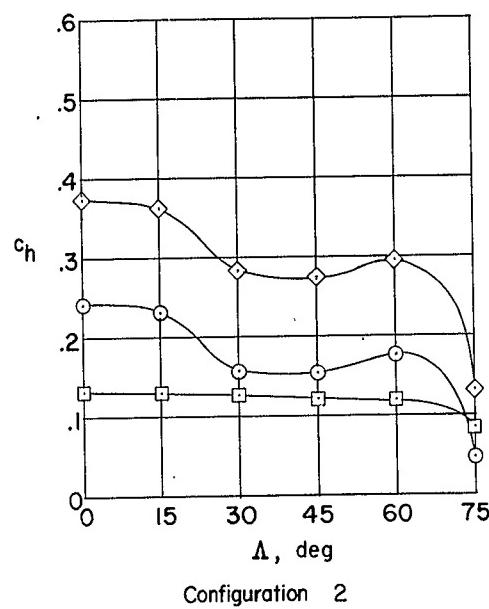


Configuration 9

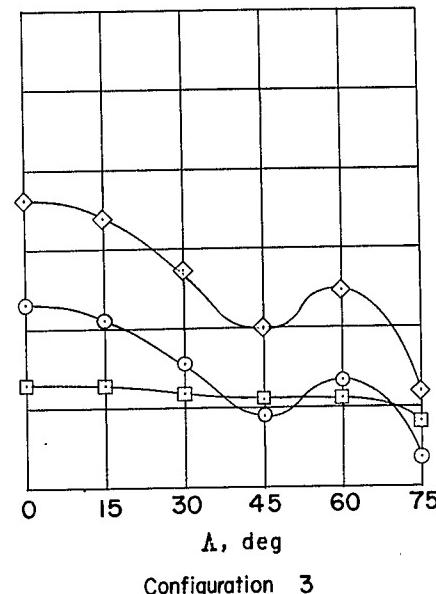
- Front face
- Rear face
- ◇ Total

(b) $M = 1.61$.

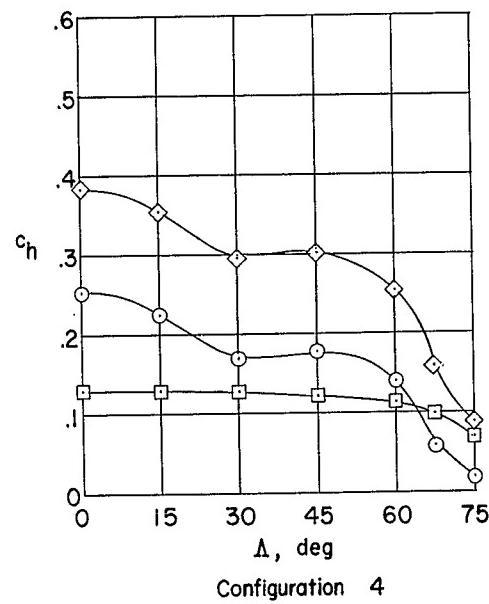
Figure 31.- Continued.



Configuration 2



Configuration 3

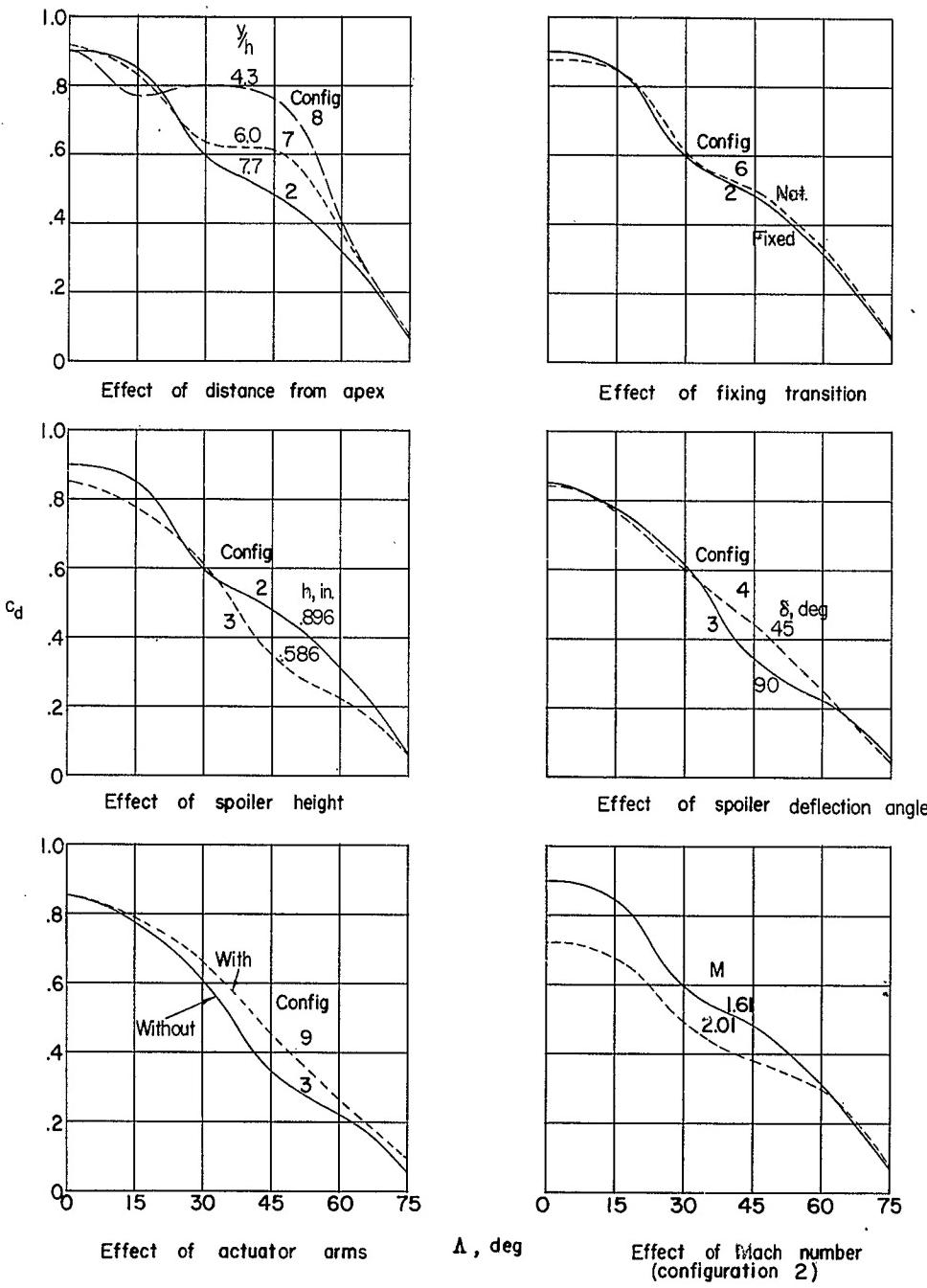


Configuration 4

- Front face
- Rear face
- ◇ Total

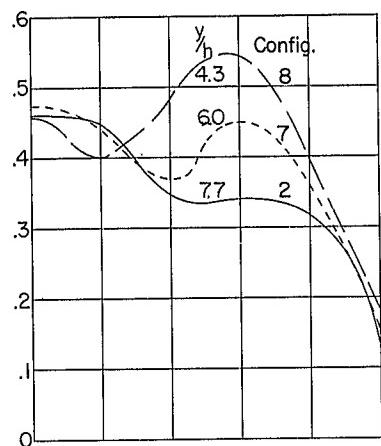
(c) $M = 2.01$.

Figure 31.- Concluded.

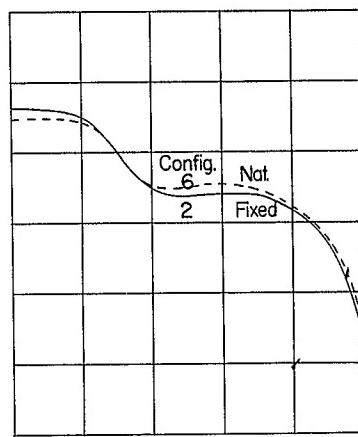


(a) Drag coefficient.

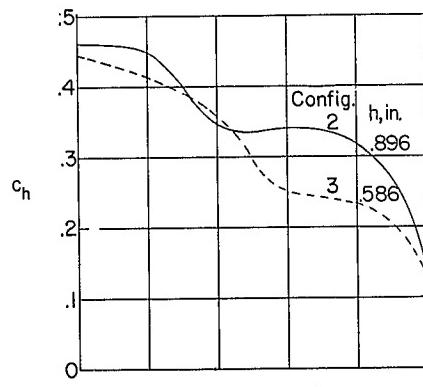
Figure 32.- Effect of various configuration and Mach number changes on total drag- and hinge-moment-coefficient variations. $R = 0.30 \times 10^6$. $M = 1.61$ except as noted.



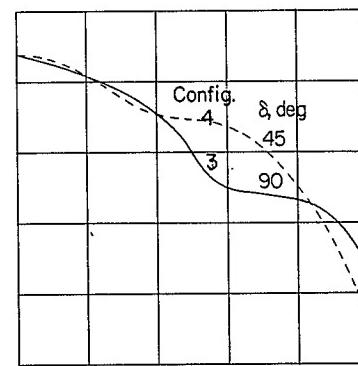
Effect of distance from apex



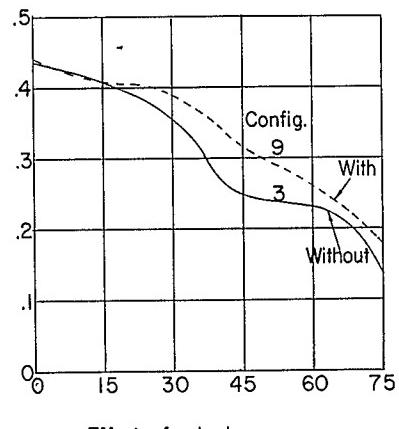
Effect of fixing transition



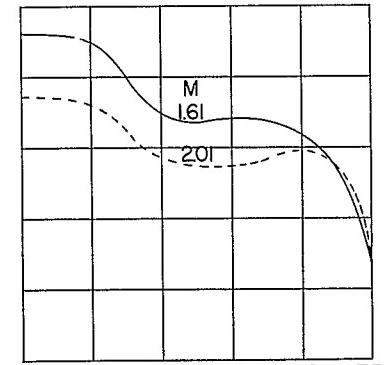
Effect of spoiler height



Effect of spoiler deflection angle

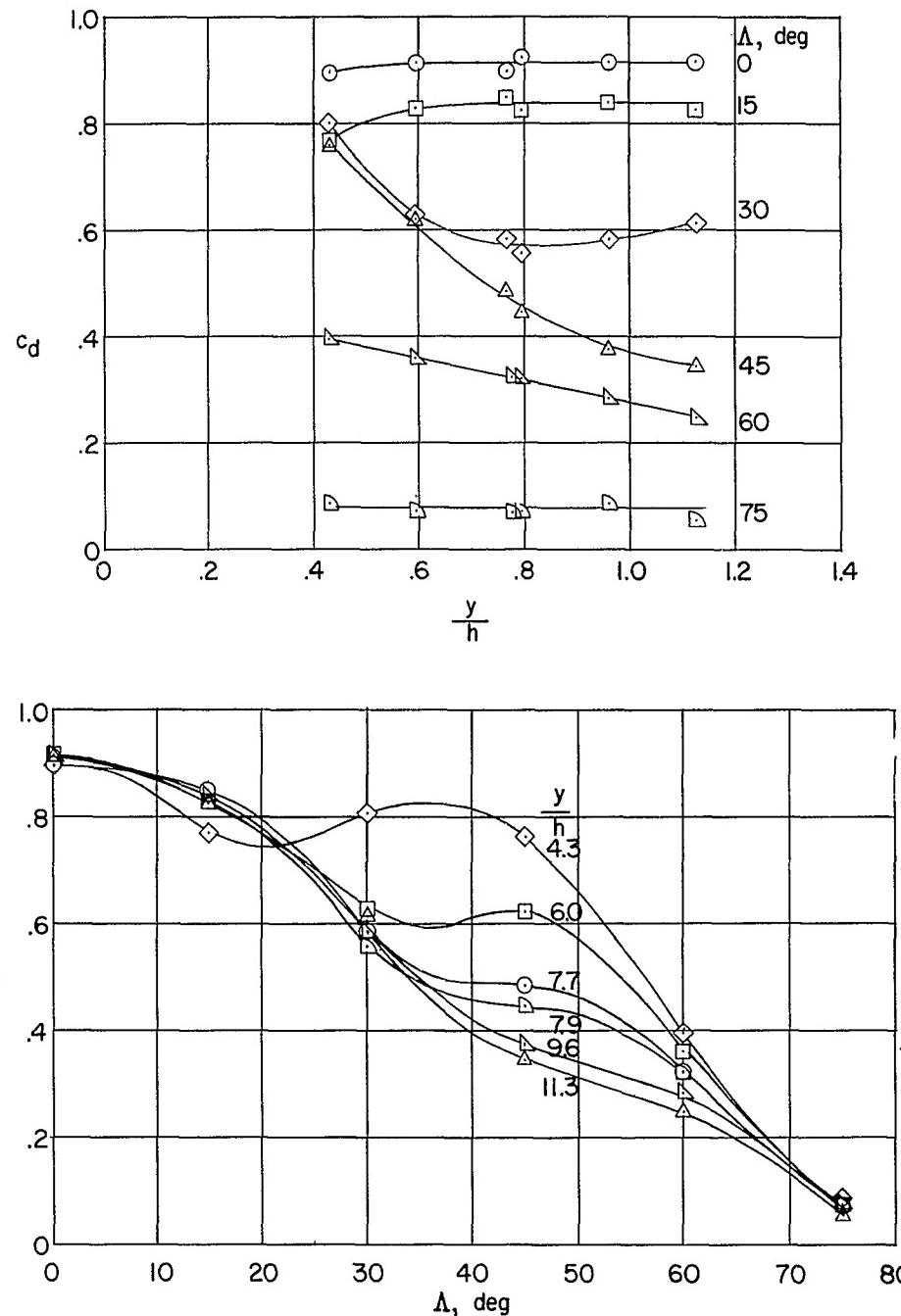


Effect of actuator arms

Effect of Mach number
(Configuration 2)

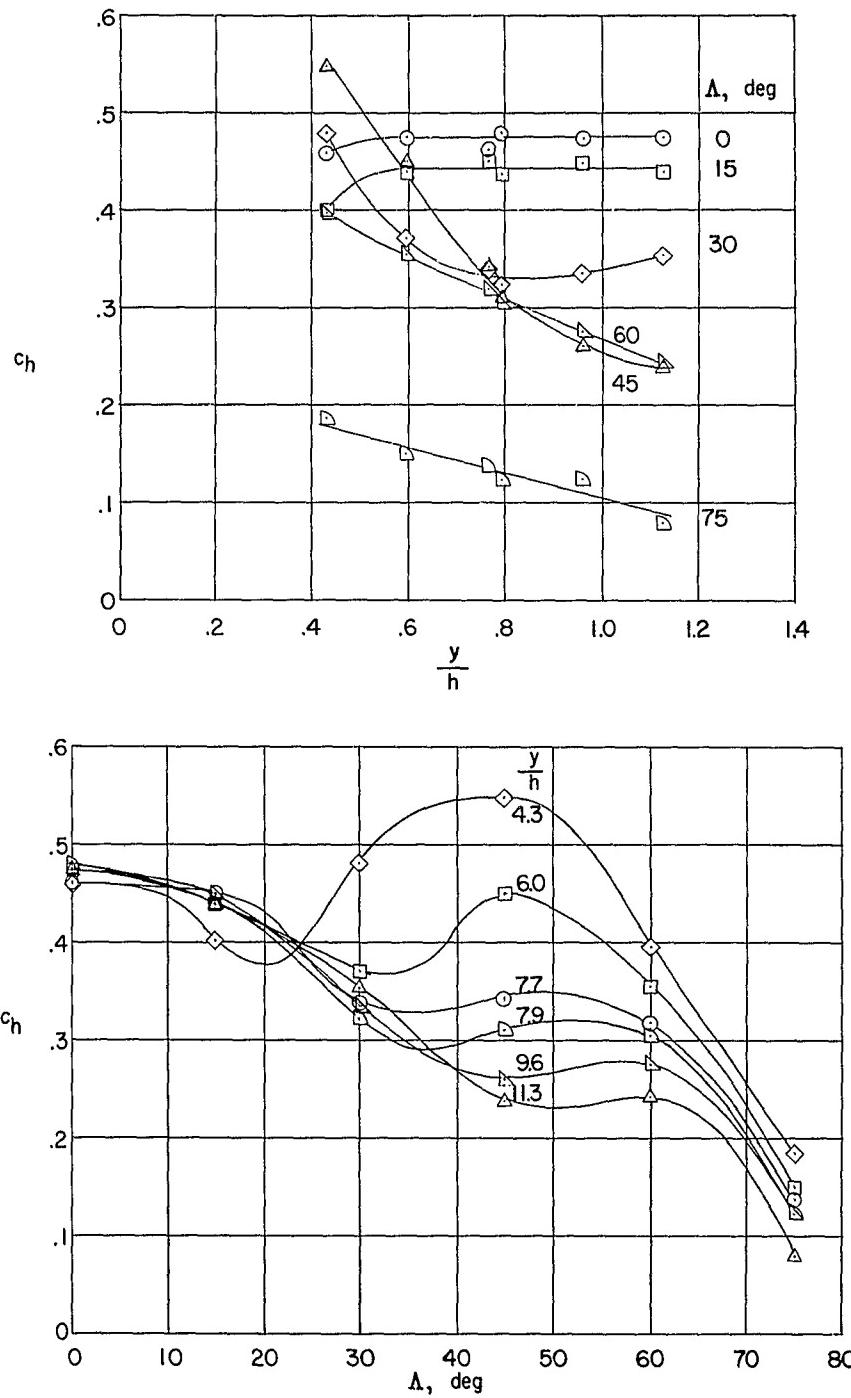
(b) Hinge-moment coefficient.

Figure 32.- Concluded.



(a) Drag coefficient.

Figure 33.- Spanwise variations in total drag and hinge-moment coefficients. Configurations 2, 7, and 8; $M = 1.61$; $R = 0.30 \times 10^6$.



(b) Hinge-moment coefficient.

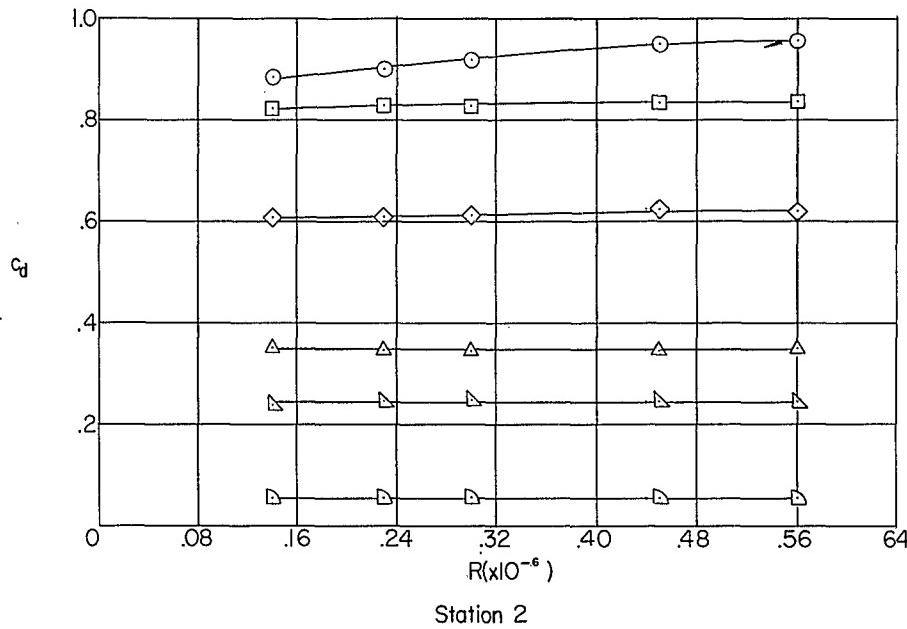
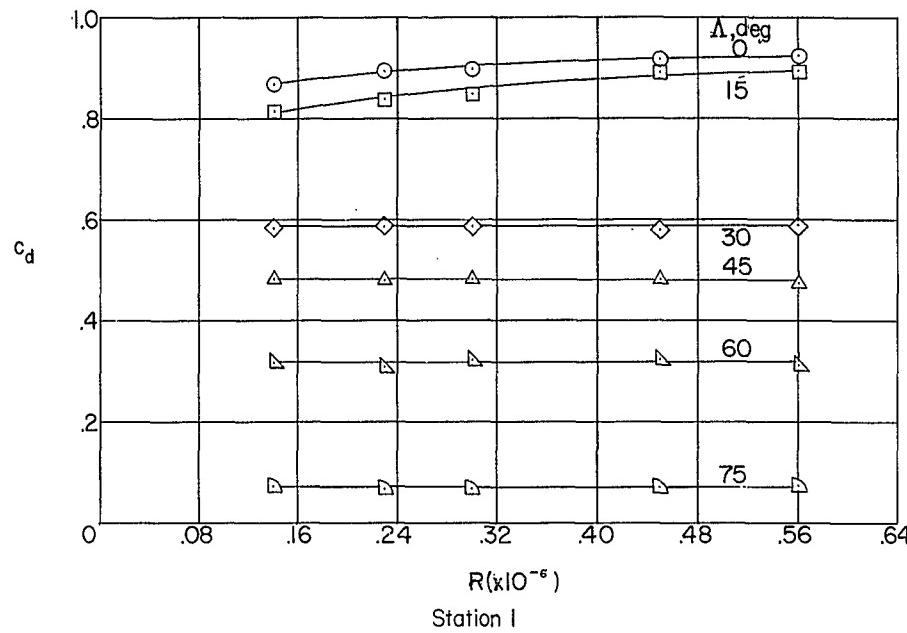
Figure 33.. Concluded.

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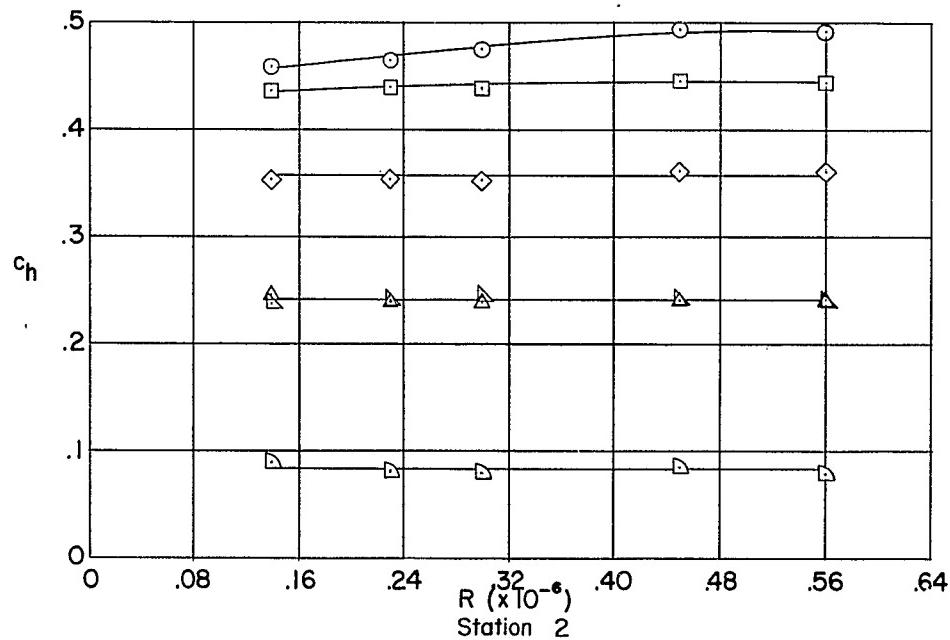
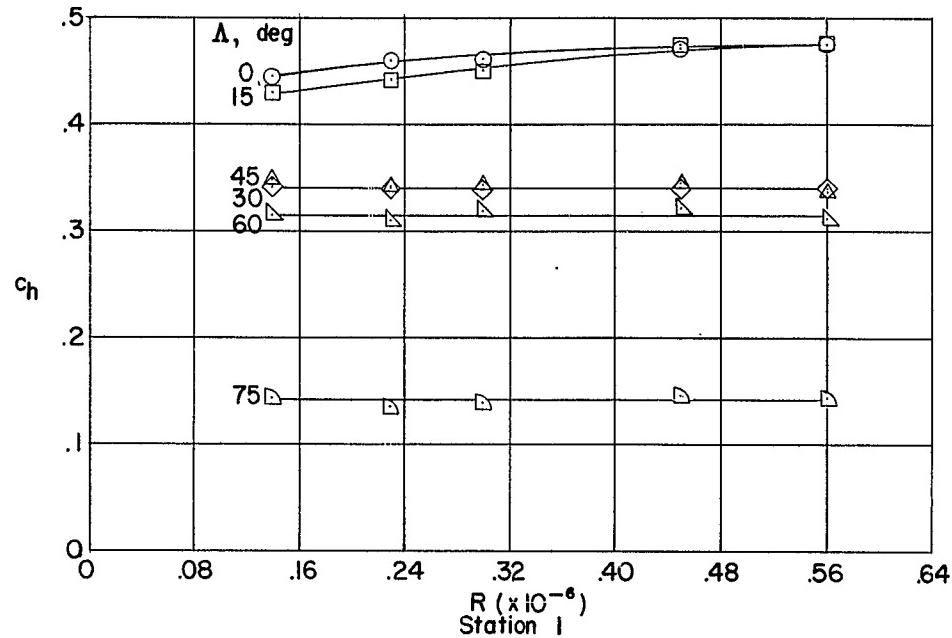
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(a) Drag coefficient.

Figure 34.- Effect of Reynolds number on total drag and hinge-moment coefficients for configuration 2. $M = 1.61$.

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(b) Hinge-moment coefficient.

Figure 34.- Concluded.

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PLATE AT MACH NUMBERS OF 1.61 AND 2.01.
Douglas R. Lord and K. R. Czarnecki. March
1956. 174p. diagrs., photos., tabs.
(NACA RM L55L12) CONFIDENTIAL

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1. Flow, Supersonic (1.1. 2. 3)
2. Controls, Spoiler - Wing Sections (1.2. 1. 5. 2)
3. Controls, Spoiler - Complete Wings (1.2. 2. 4. 2)
4. Control, Hinge Moments (1.8. 2. 5)
5. Loads, Steady - Wings (4.1. 1. 1. 1)

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